

ISO 14001:2015  
ISO 9001:2015



## COMPANY PROFILE



# POLYGON

CHEMICALS PRIVATE LIMITED  
(A unit of Social Polygon Group of Companies)

[WWW.POLYGONCHEMICALS.COM](http://WWW.POLYGONCHEMICALS.COM)

## Vision

- To provide customized solution to the Infrastructure developing Industries.
- Our values reinforce the organizational spirit.
- Our values reflect what we believe in.
- Our values guide and drive our behavior.
- Our values define our role and enable us to deliver customer success.
- Our values inspire action and set us apart.
- Collaborative Spirit
- Polygon believes in developing true partnerships. We foster a collegial environment, where individual perspectives and honest dialogue is respected.
- Unrelenting Dedication
- Polygon is driven to meet client needs with determination and grit. We embrace tough challenges and do not rest until the problem is solved, the right way.
- Expert Thinking Polygon brings robust skills and forward looking perspectives to solve customer challenges. We use proven knowledge to make recommendations and provide expert guidance to our customers

## Mission

To provide high quality products that combine performance with value pricing, while establishing a successful relationship with our customers and our suppliers.

## About us

POLYGON CHEMICALS PVT. LTD. An ISO 9001:2015, 14001: 2015 certified company, introduce ourselves as one of the premier manufacturer of Construction Chemicals like: Super plasticizer Conforming to the specification (IS 9103:1999 Reaffirmed 2004 Edition 2.2 (2007-080)), Normal Plasticizer, Accelerators (alkaline & alkali-free), Conforming EFNARC 1996 Silica Fume/Micro silica (Conforming to IS 15388: 2003), Integral and External Waterproofing Compound (Conforming to IS 2645-1975), Acrylic & latex based waterproof membrane coating, APP Membranes, Non shrink grout for injection grouting, Soil Emulsifier & Stabilizer Poly Foam, Aqua Grout and so on.

In addition to the above mentioned product specified value in this standard, we also offer provides technical service to project consultants, Engineering companies & architects to achieve high technology concrete solutions.

We have our plants, R&D centres located at Mumbai & Dehradun, where we follow latest quality standards and international norms for product evaluation. Also we periodically evaluate our products from IIT DELHI, CBRI ROORKEE, NCCBM BALLABHGARH, NTH.

POLYGON CHEMICALS is a technology driven company priding itself in developing indigenously, most effective formulations for any application specifically in the field of

construction, water treatment and oil field applications. We aim in achieving this by a constant research and investigation on the best chemical formulations available globally for specific applications; analyzing their desirable features; and incorporating them in our products. A team of dedicated personnel has been put in our Research and Development department to make our aim success and to provide the best value for your money.

POLYGON CHEMICALS, in addition to providing the best formulations, also undertakes execution of waterproofing of all concrete structures like basements, underwater, overhead, tunnel lining etc. A same research driven approach for excellence is followed in our Application department also. We also provide recommended guidelines to solve any specific problems in the field of repair and rehabilitation, which may be encountered on the job.

Combining The POLYGON CHEMICALS advanced technology, our deep understanding of our customer's businesses and strong local expertise in construction chemicals and engineering, we are able to provide tailor-made solutions that help our customers to increase efficiency, productivity & flexibility in their operations, while reducing cost and safeguarding environment.

# Certificate



## CERTIFICATE

*This is to Certify that the  
Environmental Management System  
of*

### **Polygon Chemicals (P) Ltd.**

Correspondence Address:- Social Bhawan, IInd Floor, Anekant Palace,  
29 Rajpur Road, Dehradun Uttarakhand, India.

Site Address: Khasra No. 1274, MI Langha Road, Charba, Vikas Nagar,  
Dehradun Uttarakhand, India.

**Has been independently assessed and is compliant  
with the requirements of**

**ISO 14001:2015**

**This certificate is applicable to the following product or service ranges:**

**Manufacturing & Supply of Chemicals in the Field of Maintenance,  
Constructions Additives, Auto Maintenance**

## ASSESSMENTS

**:: Certificate No :: IN114875B**

### ENVIRONMENTAL MANAGEMENT SYSTEM

**Date of initial registration 12 December 2018**

**Date of this certificate 12 December 2018**

**Surveillance audit on or before 11 December 2019**

**Recertification Due / Certificate expiry 11 December 2021**

This Certificate is property of LMS Certifications and remains valid  
subject to satisfactory surveillance audits.

**Director**



**LMS Certifications Private Limited**  
1-Ananddham, Opp. Kukrail Picnic Spot Gate,  
Farid Nagar, Lucknow - 226015, UP, (INDIA).  
e-mail :- [info@lmsassessments.com](mailto:info@lmsassessments.com),  
Visit :- [www.lmsassessments.com](http://www.lmsassessments.com).







## Certificate of Registration

This is to certify that

**Quality Management System**

of

**POLYGON CHEMICALS PVT. LTD.**

**\*Correspondence Address: "Social Bhawan" IInd Floor, Anekant Palace, 29 Rajpur Road, Dehradun (Uttarakhand) – 248 001, India.**

**Registered Office: 213, Satra Plaza, Plot No. 20D, Sector-19D, Vashi, Navi Mumbai – 400 705, India.**

**Site-1 Address: Khasra No. 1274, Charba Industrial Area, Langa Road, Dehradun (Uttarakhand) – 248 197, India.**

**Site-2 Address: Plot No. W-129 B, M.I.D.C. Talaja, India.**

complies with the requirements of

**ISO 9001:2015**

This certificate is valid concerning all activities related to:

**Manufacturing and Supply of Construction Chemicals,  
Construction Additives, Water Proofing Chemicals,  
Rock Bolt Capsules, Steel Fibre and Auto Maintenance Products.**

**ANZSIC Code: 1812, 1813, 2299**

**\*The Correspondence Address is not Audited and Not Included in the Scope of Registration.**

**15561**  
Certificate No.

**July 04, 2020**  
Date of this Certificate

**July 03, 2021**  
\*Next Audit Due Date

**July 04, 2020**  
Date of Initial Registration

**July 03, 2023**  
Certification Expiry Date

  
Managing Director/Director



**TRANSPACIFIC CERTIFICATIONS LIMITED**

Website : [www.tclcertifications.com](http://www.tclcertifications.com) E-mail : [info@tclcertifications.com](mailto:info@tclcertifications.com)  
Accreditation by Joint Accreditation System of Australia and New Zealand (Accreditation No. S26403031N)  
4 Phipps Close, DEAKIN, ACT 2600, AUSTRALIA  
<http://www.jas-anz.org/our-directory/certified-organisations>

This certificate is only valid if it is available/valid on TCL website at <http://tclcertifications.com/client-register/>.

\*The certificate of Registration remains the property of Transpacific Certifications Limited and shall be returned immediately upon request.  
\*In case if Surveillance/Recertification Audit is not allowed to be conducted on or before the specified date; the Certificate shall be Suspended/Withdrawn.

Version 1.11



**भारतीय मानक ब्यूरो**  
**BUREAU OF INDIAN STANDARDS**

देहरादून शाखा कार्यालय  
DEHRADUN BRANCH OFFICE

Address: UCF Sadan, Ground Floor,  
Block- D, Deep Nagar Road,  
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Dehradun - 248001

Phones : 7617777270, 7617777278

E-Mail: [dhbo@bis.gov.in](mailto:dhbo@bis.gov.in)

Web: <http://www.bis.org.in>

GST No. 05AAATB0431G1ZH

**पंजीकृत/पावती**

हमारा संदर्भ: DHBO/CML- 8300131003

दिनांक: 2 JUN 2020

विषय: प्रमाणन मुहरांकन संख्या सीएम/एल- 8300131003 के नवीनीकरण के संदर्भ में

M/s. Polygon Chemicals Private Limited,  
Khashra No.1274 Mi, Langha Road,  
Chharba, Vikashnagar,  
Distt: Dehradun,  
Uttarakhand- 248001

महोदय,

1. कृपया अपने ऑनलाइन नवीकरण आवेदन का अवलोकन करें। हमें यह जानकारी देते हुए प्रसन्नता है कि आपके प्रमाणन लायसेंस का दिनांक 04-05-2020 से 03-05-2021 तक नवीकरण हो गया है।

2. कृपया ध्यान दें कि यह लायसेंस उपरोक्त लिखित अवधि के बाद समाप्त हो जाएगा। अतः आपसे अनुरोध है कि आप अपना लायसेंस नवीकरण कराने के लिए आवेदन शुल्क, वार्षिक शुल्क तथा मुहरांकन शुल्क के साथ अगले नवीकरण की तिथि से कम से कम एक मास पूर्व ऑनलाइन आवेदन करें।

3. लायसेंस नवीनीकरण के संदर्भ में पृष्ठांकन शीट क्रमांक - 01 संलग्न है। इसे कृपया अपने पास उपलब्ध मूल लायसेंस के साथ जोड़ लें।

धन्यवाद


भवदीय,  
(सौरभ तिवारी)  
वैज्ञानिक- डी

संलग्न: यथोक्त

अनुसूची  
(लाइसेंस सं. सीएम/एल - 8300131003)  
Schedule  
(Licence No.CM/L- 8300131003)

नाम: मेसर्स. पोलिगोन केमिकल्स प्राइवेट लिमिटेड.,  
कारखाने का पता: खसरा न.1274 मी, लांघा रोड, छरबा, विकासनगर, देहरादून, उत्तराखंड- 248001  
वैधता: 04/05/2019 से 03/05/2020

Name: M/S. Polygon Chemicals Private Limited.,  
Factory Address: Khashra No.1274 Mi, Langha Road, Chharba, Vikashnagar, Dehradun, Uttarakhand- 248001  
Validity from 04/05/2019 to 03/05/2020

मानक चिन्ह Standard Mark	भारतीय मानक Indian Standard	अनुज्ञप्ति का विषय क्षेत्र Scope of Licence	चिह्नांकन फीस Marking Fee
(1)	(2)	(3)	(4)
IS 9103  CM/L- 8300131003	IS 9103 : 1999  कंक्रीट एडमिक्स्चर- विशिष्टि     IS 9103 : 1999  Specification for Concrete Admixtures	सूपरप्लास्टिसाइजिंग एडमिक्स्चर(फॉर वाटर रिड्युस्ड कंक्रीट मिक्स)     Superplasticizing Admixture (for water reduced concrete mix), Normal Type	एक वर्ष की प्रचालन अवधि के दौरान न्यूनतम मुहरांकन फीस ₹ 50000.00 के साथ सभी इकाईयों के लिए ₹ 52.00 प्रति इकाई    इकाई: 1 KL/1 TON  एक प्रचालन वर्ष के लिए न्यूनतम चिह्नांकन शुल्क अग्रिम में देय होगी जो अगले नवीकरण में अग्रणीत होगी।  ₹ 52.00 per unit for all units with a Minimum Marking Fee of ₹ 50000.00 during an operative period of one year  Unit: 1 KL/1 TON  Minimum marking fee for one operative year payable in advance which will be carried over to next renewal(s)

आज आठ मई दो हजार उन्नीस को हस्ताक्षरित तथा मोहरबंद किया गया।  
Signed, Sealed and Dated this Eighth May Two Thousand Nineteen .

भारतीय मानक ब्यूरो के लिए  
For Bureau of Indian Standards

  
अनिलेश. एम. डेविड  
प्रमुख (देहरादून शाखा कार्यालय)

# Clients

## Highway Project

- ITD Cemendia JV.– N.H.A.I.–Project Kota ByPass, Rajasthan
- Gayatri Project LTD. N.H.A.I.–Project (NH–58),Meerut
- Leighton India – OSE Joint Venture N.H.A.I.- Project(NH-11)
- Ashoka Buildcon Ltd – N.H.A.I. – Project(NH-76), Chittorgraph
- Ashoka Buildcon Ltd – N.H.A.I. – Project JNRP
- Nagarjuna Construction Ltd – N.H.A.I. – Project (NH58), Muzafarnagar
- Madhucon Project Pvt. Ltd – (NH-37)- Assam
- Patel – KNR(JV)-(NH-37) Nagaon Bypass, Assam
- Gayatri ECI(JV) – (NH-31C), Assam
- B. Seenath & Co.(Project) Ltd. SH-31. Madhya Pradesh
- Highway Infrastructure Pvt. Ltd – Indore
- Ashoka Buildcon Ltd Musakhedi – Indore
- Ashoka Buildcon Ltd Musakhedi – Nashik

## Hydro Project

- HCC, Tehri
- Gammon India Ltd. Vyasi
- L&T Singhori Bhatwadi
- JP Associates Mori & Joshimath
- Ashok Chauhan Pandoh
- NER Engineering Vyasi

## Infra Project

- R. L. Dalal & Company Private Limited. (Mumbai)
- Sanjeev Construction
- Krishna Construction Company Pvt. Ltd.(New Delhi)
- Larsen & Toubro Ltd.
- D.L.F.
- WIG Brothers Construction Company Ltd.
- Gammon India Ltd – Mumbai
- Roman Taramat – Lonavala
- S.C. Thakur & Brithers – Mumbai
- Mahavir Road & Infrastructure Pvt Ltd – MMRDA, BKC Project
- Navdeep Construction – Mumbai
- Mehrotra Buildcon (P) Ltd – Rajkot, Gujarat
- Sarjan Infracon Pvt Ltd – Ahmedabad
- Pratibha Industries Ltd – Malbar Hill Tunnel Project
- Suma Enterprises – Thane
- Rustamjee RMC – Thane
- J.K.M. Infrastructures – Haryana
- Jindal Infrastructures Pvt Ltd– Haryana
- Punj LLYoed Ltd – Gurgaon

## Govt. Bod

- DMRC
- THDC
- NPCC
- NHAI
- UJVNL
- UPCL



# Products

As a specialty chemical manufacturer, the company's product line encompasses various sub segments like construction, water treatment & oil field chemicals. Among all these sub segments, the construction chemicals product line has grown on to become highest revenue contributor for the company. The division has the capability to offer a total versatile solution to the civil industry, both in infrastructure and industrial market segment. The company prides itself in

indigenously developing effective formulations for all of its products. Compete integration of its offerings to the customer is key to the company's success, the company offers a complete service oriented package that include 3 fold applications – customization & demonstration of products at actual site conditions, dispatch of materials as per the schedule and a post sales technical service on regular basis.

## ADMIXTURE SUPERPLASTICIZER

Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
VITCON 9001 HG	VITCON 9001 HG is a high range water reducer/superplasticizer admixture formulated specially to extend the working time of concrete. It is based on Sulphonated Naphthalene Formaldehyde. VITCON 9001 HG conforms to specification prescribed in IS 9103-1999 & ATSM C 494, Type G	High performance concrete Ready Mix concrete Flowing concrete Heavily reinforced concrete Pumpable concrete	Produces flowing concrete with controlled delay of slumps loss and work ability Water reduction 12% and above can be obtained Reduces cracking and permeability of hardened concrete Reduces segregation and bleeding in the plastic concrete Reduces concrete placement time and cost Enable transport of concrete to distant places	0.3% to 2.5% by the weight of cement. It is advisable to carry out trial to establish the exact & optimal dosage rate depending upon the set retardation required	It is non flammable and non hazardous Any splashes on the skin should be washed immediately with water Splashes on the eyes should be washed immediately with water and seek medical advice	Must be stored in original packaging , in ambient temperature, dry palce, under shed, protect from direct sunlight
VITCON 9002 MF	VITCON 9002 MF is high range water reducing admixture based on modified polycondensate of sulphonated Naphthalene and Melamine Formaldehyde. VITCON 9002 MF is a brown liquid and dispersed thoroughly with cement particles in concrete. VITCON 9002 MF conforms to ASTM C 494 type F.	VITCON 9002 MF gives high workability without loss of strength. It also enables high water reduction to achieve dense concrete with higher ultimate strength. VITCON 9002 MF is very useful in various applications like pumpable concrete, precast and pre-stressed concrete, industrial /commercial flooring and in the areas where early release of shutter is required.	High work ability without extra water helps to produce self-leveling concrete, which can be poured inside congested reinforcement with minimum vibration to achieve optimum compaction. Improves bonding of concrete with reinforcement steel. Increased dispersion of cement particles decreases internal friction and thixotropy phenomena of mix reducing segregation of concrete and achieving pumping consistency. Significant water reduction minimizes shrinkage and cracking producing durable impervious concrete Reduces permeability of concrete against water migration and corrosion of embedded steel. Compatible with all types of cement like OPC, PPC, PSC and SRC.	The optimum dose should be obtained by conducting site trials with particular concrete mix. For guidance add the VITCON 9002 MF at a dose of 200ml to 1000ml per 50kg of cement depending on the uses required. 1.For high workability :- dose is 200ml to 600ml per 50kg of concrete. 2.For high compressive strength:-400ml to 1000ml per 50kg of cement.	VITCON 9002 MF is non-toxic, non-flammable and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage conditions under shade



Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 9004</b>	VITCON 9004 is a clear chloride free accelerating admixture for concrete and mortar mixes. VITCON 9004 also acts as a water-reducing admixture to enhance significant increase in strength, both in early and ultimate stage. VITCON 9004 is based on selective polymers and is dispersed thoroughly with Portland cement particles in concrete. VITCON 9004 conforms to ASTM C 494 Type C and BS 5075 Part 1.	It is always recommended for a maximum dispersion in the concrete mix the measured quantity of VITCON 9004 should be added with mixing water.  It is also advised not to overdose in the mix. This may result in faster initial acceleration process, without any hamper to ultimate strength to the cured structures	Accelerates the setting process. Improves early and ultimate strength of concrete. No chloride additive – can be used safely in RCC and PSC. Enhances productivity in precast industries. Reduces permeability of concrete against water migration. Compatible with all types of cement like OPC, PPC, PSC and SRC except High Alumina Cement. Can also be used for Cement – Fly Ash mixes.	VITCON 9004 is normally recommended for a dose of 1 to 1.5 Kg per 50kg of cement depending on the uses required. But the optimum dose can be obtained by conducting site trials with particular concrete / mortar mix.	VITCON 9004 is non-toxic, non-flammable and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Store conditions under shade
<b>VITCON 9012 R</b>	VITCON 9012 R is a set retarding admixture for concrete. It is used for increasing working time higher durability, reducing shrinkage and permeability of concrete. VITCON 9012 R conforms to specification prescribed in IS 9103 - 1999 & ASTM C 494, Type B	Add VITCON 9012 R to the dosing water. It should not come into contact with dry cement. Charge all concrete material in the proper order into the mixer with about 70 % of the mixing water and mix for the three minutes. Add rest quantity of water with admixture to obtain the required slump and mix for three addition minutes.	Provides easier handling and finishing. Elimination of cold joints between subsequent pours in mass or structural concrete. Aids in placing bridge deck concrete where it is desirable to stress the entire section prior to the concrete achieving initial set. Increases durability. Reduces shrinkage and permeability. Long lasting control of slump loss at high concrete temperature. Enable transport of concrete to distant places.	Generally 0.8 – 2.5 % by weight of cement. Do not allow over dosing. Due to overdosing setting time will be extended rigorously. It is advisable to carry out a trial to establish the exact & optimal dosage rate depending upon set retardation required. VITCON 9012 R is compatible with our VITCON range of superplasticiser, which is added to the concrete for slump.	VITCON 9012 R is non toxic, non flammable and non hazardous. Any splashes on the skin should be washed immediately with water. Splashes on the eyes should be washed immediately with water and seek medical advice.	Must be stored in original packing, in ambient temperature, dry place under shed. Protect from direct sunlight.
<b>VITCON 9001 PCE</b>	VITCON 9001 PCE has been primarily developed for applications in the ready mixed and precast concrete industries where the highest durability and performance is required. VITCON 9001PCE conforms to specification prescribed in IS 9103 - 1999 and ASTM C494 Types A and F.	VITCON 9001 PCE is especially suitable for the production of concrete mixes which require high early strength development, powerful water reduction and excellent flow ability. Ready mix concrete Self compacting concrete and precast concrete Fast track concrete In situ concrete requiring fast stripping time	Pronounced increase in the early strength development, resulting in very economical stripping times for precast and in situ concrete Extremely powerful water reduction , resulting in high density, high strength and reduced permeability for water Excellent plasticizing effect, resulting in improved flowability, placing and compacting behavior Improved shrinkage and creep behavior It does not contain chlorides or other ingredients promoting corrosion of steel reinforcement. It is therefore suitable for reinforced and pre stressed steel.	Generally 0.3 –1.5 % by weight of cement. Do not allow over dosing. Due to overdosing setting time will be extended rigorously. It is advisable to carry out a trial to establish the exact and optimal dosage rate depending upon set retardation required.	Use goggles and hand gloves during application Clean hands with warm soap water after application	Must be stored in original packing, in ambient temperature, dry place under shed. Protect from direct sunlight.



Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 9001 PCM</b>	VITCON 9001 PCM is a polycarboxylate ether based superplasticizer and a new type high-range water-reducing admixture for concrete grades from M-20 to M-50. VITCON 9001 PCM is designed to provide good workability without segregation conforming to ASTM C-494 TYPE G, C-1017 and IS 9103: 2003.	High strength concrete High slump concrete Flowing concrete. Self consolidating concrete and also for better specific requirements go for our admixture VITCON 9001 PCM.	VITCON 9001 PCM can be used with all types Portland cement and other mixed cement included Fly ash, Ground granulated blast-furnace slag, Silica fume and so on. VITCON 9001 PCM has high water-reducing ability, and the water reducing rate can be easily controlled by changing the dosage. VITCON 9001 PCM provides good slump retaining ability. VITCON 9001 PCM provides a suitable viscosity for concrete, and eliminates excessive bleeding and segregation. Use of VITCON 9001 PCM is an appropriate method to produce high durable concrete with high water reducing ability.	VITCON 9001 PCM has a recommended dosage range of 0.5 ~ 1.5% by weight of cementations materials. But the dosage rate will vary according to concrete materials used, ambient conditions and the specific requirements of concrete.	When VITCON 9001 PCM gets into eyes, wash it off with clean water immediately and consult a doctor if necessary.	VITCON 9001 PCM should be stored at temperatures above 50 C. If frozen, its properties can be recovered after thawing and agitating thoroughly.
<b>VITCON 9001 SPQ</b>	VITCON 9001 SPQ is a high range dark brown coloured concrete superplasticiser, conforming to the specifications of ASTM C 494 type G and IS 9103-2003. VITCON 9001 SPQ, based on Sulphonated Naphthalene Formaldehyde and selective dispersant polymers, is specifically formulated for pavement concrete applications. VITCON 9001 SPQ induces a strong dispersion property to modify the rheology of concrete mixes with minimum cement	Addition of VITCON 9001 SPQ reduces total water demand in concrete mix enabling to achieve high ultimate strength. VITCON 9001 SPQ also imparts a strong dispersing effect without any segregation or bleeding. The controlled extension of concrete setting time also minimizes the cold joint formation and reduces plastic shrinkage cracks during continuous pouring. Cement content of the concrete can also be economized with VITCON 9001 SPQ due to its high cement dispersion property.	Enhances work ability with reduced water content. Helps to achieve a cohesive and homogeneous concrete. Stabilizes concrete mixes with low fines content. Increases ultimate strength with maximum water retention. Compatible with all types of cement.	VITCON 9001 SPQ is generally dosed in the range of 0.3 to 2.5% by weight of cement. The dosage can be enhanced to further 3.5% at higher temperature. But it is always advisory to go for trial mix to determine the optimum dosage. The requisite quantity of VITCON 9001 SPQ is generally added to the concrete with gauging water.	VITCON 9001 SPQ is non-toxic, non-flammable and non-hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Under shade

## PLASTICIZER

<b>VITCON 9012 WR</b>	VITCON 9012 WR is synthetically make dark brown liquid concrete admixture conforming to ASTM C 494 type A and IS 9103 - 1999 specification. VITCON 9012 WR shows a strong dispersion property as soon as it is added into the concrete mix resulting to a highly workable concrete at a lower W/C ratio. Its special biocide formula also reduces any bio mass growth in the concrete.	As VITCON 9012 WR is added to the concrete mix, it results in increase in workability and reduction in total water demand in concrete. VITCON 9012 WR is also effective to reduce permeability of concrete lowering its capillary action. VITCON 9012 WR can be used for making any structural concrete like concrete floors, walls or mass concrete.	Enables to achieve a workable concrete at low W/C ratio. Reduces total water demand in concrete resulting in higher strength. Reduces permeability of the concrete appreciably. Reduces segregation and bleeding. Helps to achieve an economic cohesive mix at low cement content.	VITCON 9012 WR is normally dosed in the range of 0.3% to 1.5% by weight of cement depending upon the designed water content and workability as required. The trial design mixes are advisable to optimize the dosage.	VITCON 9012 WR is non-toxic and non-flammable. However, any splash on the human body must be washed with plenty of water.	Store conditions under shade
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Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 9015 RETARDSOL</b>	VITCON 9015 RETARDSOL is a light brown ready to use liquid used for retardation of surface concrete to achieve an exposed aggregate finish. VITCON 9015 RETARDSOL is based on solvent free polyhydroxy compound blended with speciality additives, which react with adhered layer of concrete extending the setting time. VITCON 9015 RETARDSOL conforms to the specifications of ASTM C 494 type B and IS 9103-2003.	VITCON 9015 RETARDSOL is applied either by brush or spray on the surface of clean uncontaminated formwork just before placing of concrete. Generally, single coat is advised except for highly absorbent formwork surfaces. The formwork has to be removed as quickly as possible after placement of concrete depending on ambient temperature and placing conditions. Immediately after removal of formwork, the concrete surface has to be washed away with strong water jet to remove retarded concrete. This ultimately results in an exposed aggregate finish at the surface.	<ol style="list-style-type: none"> <li>1 Helps to achieve exposed aggregate finish on the surface.</li> <li>2 Compatible with all types of cement.</li> <li>3 Reduces mechanical and labour cost.</li> <li>4 Eliminates scrabbling.</li> <li>9 Eliminates chances of construction joint formation.</li> <li>5 Best suitable for both cast in-situ as well as precast segments.</li> </ol>	VITCON 9015 RETARDSOL is generally applied in the range of 0.1 to 0.2 kg per square meter depending on porosity substrate. The dosage can further be varied depending on actual requirements, climatic conditions and type of formwork. But it is always advisory to go for trial mix to determine the optimum dosage.	VITCON 9015 RETARDSOL is non-toxic, non-flammable and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Store conditions under shade


## AIR ENTERING AGENT

<b>VITCON 100 AR</b>	VITCON 100 AR is a synthetic dispersion of resin polymers, which entrain air bubbles in the concrete in minute forms. The homogeneous dispersion of these minute air bubbles in the concrete medium act as filler materials in concrete mixes reducing segregation in concrete. Moreover air bubbles interrupt the capillary system in concrete matrix resulting in resistance against freeze-thaw cycles.	VITCON 100 AR is normally added to the gauging water in concrete. Addition of VITCON 100 AR in concrete enables to achieve a better consistency reducing segregation and bleeding. VITCON 100 AR also increases the workability of concrete at a constant W/C ratio.	Ideal for mass concrete. Reduces segregation and bleeding. Resists freeze and thaw cycles. Enhances workability. Improves permeability of concrete.	VITCON 100 AR is generally dosed in between 0.02 % and 0.5 % by weight of cement depending on requisite air content, climatic conditions and mixing procedures. VITCON 100 AR is compatible with VITCON range of super plasticizers. For usage with other admixtures, it is always advised to carry out compatibility test before finalizing the dosage.	VITCON 100 AR is non-toxic. However, any splash on the body must be washed with plenty of water.	Store conditions under shade
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<b>VITCON 100 SFA</b>	VITCON 100 SFA is a synthetic foaming agent used for producing controlled low density concrete. It can be added directly to the concrete or can be added through foam generating equipment for proper performance. Due to its non protein based synthesis, it exhibits uniform density throughout the year with no changes with change in weather condition like in case of protein based foaming agents.	Light weight concrete blocks Floor fill/trench fill /reinstatement Pipe bedding Old storage vessel/tanks Unstable soil replacement	Entrain air up to 25 - 30% Reduces density of concrete Increases yield	Generally dosed in between 0.5 - 0.6% by weight of cement depending on requisite air content, climate conditions and mixing procedures. Pre trials will be required to be carried out to determine the actual dose.	VITCON 100 SFA is a non toxic Any splashes on the skin should be washed immediately with water Splashes on the eyes should be washed immediately with water and seek medical advice immediately.	Must be stored in original packing at ambient temperature, dry place under shed. Protect from direct sunlight.
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Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 600 FA</b>	VITCON 600 FA is a water based chloride free liquid. It is a foam generating and stabilizing admixture for concrete. It provides a heat insulating effect on concrete and reduces the density of concrete.	High lightweight concrete Squeeze cementing of deplete zones Structural and heat insulating foam concrete Heat insulating material for reinforced concrete floors, partitions Primary cementing of weak formations Overcoming lost circulation in cavernous vugs	Lowers density Reduces the weight of concrete Lowers heat conductivity Provides insulation Chloride free hence does not corrode the steel reinforcement	600 ml to 1.2 liter per bag of cement depending upon the desirable density of concrete, cement quality and quantity.	VITCON 600 FA is a non toxic Any splashes on the skin should be washed immediately with water Splashes on the eyes should be washed immediately with water and seek medical advice immediately.	Must be stored in original packing at ambient temperature, dry place under shed. Protect from direct sunlight.

## SHOTCRETE ACCELERATOR

<b>VITCON 9013 AFL</b>	VITCON 9013 AFL is alkali free liquid accelerator for wet shotcrete mix, whose dosage can be varied to the desired setting and hardening times. The mix containing VITCON 9013 AFL reduces any effect of alkali on concrete during shotcreting process. VITCON 9013 AFL also makes the shotcrete mix highly cohesive reducing losses on rebound effectively.	VITCON 9013 AFL is used in the civil and underground construction industry such as: Rock support in tunnels and mines Slope stabilization TBM tunnel linings / backfilling Soil stabilization in poor ground conditions	Alkali free Alkali Free Easily miscible with water. Reduces rebound losses. Increases compressive strength. Higher Productivity. Increase coverage.	The dosage of VITCON 9013 AFL depends on the temperature conditions, cement reactivity and setting time. Normally the dosage of VITCON 9013 AFL in the range of 3 – 10% by weight of cement. Initial Setting Time - 6 min. Final Setting Time - 41 min. The above results are variable with cement type, grade, aggregate quality and climatic conditions and also with dosage of VITCON 9013 AFL. The site trials are advisory to find out optimum dosage with desired performance. VITCON 9013 AFL is compatible with our VITCON range of superplasticiser, which is added to the shotcrete for slump retention.	VITCON 9013AFL is non toxic, non flammable and non hazardous. However any contact with human body must be washed with plenty of water.	Must be stored in original packing at ambient temperature, dry place under shed. The containers must be protected from direct sunlight. The best use before end date of each batch appears on the product label. After prolonged storage or transport we recommend to fully agitate it prior to use by mechanical stirring or recirculation pumping.
						
<b>VITCON 9013 AFS</b>	VITCON 9013 AFS is a high performance, alkali free powder accelerator for dry shotcrete mix. This product is formulated to increase the rate of hardening of cement and concrete mixes and this can be controlled by varying the dosage to the sprayed concrete.	Rock support in tunnels and mines Slope stabilization Tunnel linings Soil stabilization Structural concrete repair	Alkali free Reduces rebound losses and wastage Increases productivity of the shotcrete operation Good early strength development Fast setting time Provides an improved working environment	The dosage of VITCON 9013 AFS also depends on the water added, temperature conditions, cement reactivity, setting time and early strength development. The dosage is normally in the range of 4 – 8 % by weight of cement. The dry mix should be thorough and uniform before addition of water to the system at the nozzle point. Initial Setting Time - 6 min. Final Setting Time - 40 min. The above results are variable with cement type, grade, aggregate quality and climatic conditions and also with dosage of VITCON 9013 AFS. The site trials are advisory to find out optimum dosage with desired performance. VITCON 9013 AFS is compatible with our VITCON range of superplasticiser, which is added to the shotcrete for slump retention.	VITCON 9013AFS is non-toxic, non flammable and non hazardous. However any contact with human body must be washed with plenty of water.	Must be stored in original packaging at ambient temperature, dry place under shed. The bags must be protected from direct sunlight.
						

Storage	Health & Safety	Dosage/Coverage	Advantage	Usage	Description	Product
<b>VITCON 9013 SPA</b>	VITCON 9013 SPA is a light grey powder accelerator for dry shotcrete mix. As soon as the shotcrete mix containing VITCON 9013 SPA comes in contact with water at the gun nozzle, water is added to it. The mix with VITCON 9013 SPA becomes highly cohesive and can be evenly shot on any surface.	VITCON 9013 SPA is added to dry shotcrete mix. Normally water is added at the gun point ensuring a cohesive mix formation. The increased cohesiveness also reduces the rebound losses. Moreover, it enhances the compressive strength of hardened shotcrete and improves its surface texture and durability.	Increases cohesiveness of the mix Reduces rebound losses and wastages. Accelerates the setting time. Increases productivity of the shotcrete operation. Increases coverage of the given mix quantity.	VITCON 9013 SPA is normally added to the dry mix containing cement and aggregates at a ratio 2 to 6% by weight of cement. The powder mix has to be ensured a thorough and uniform before addition of water to the system. Initial setting Time : 2 to 5 minutes Final Setting Time : 25 to 40 minutes The above results are variable with cement type, grade, aggregate quality, climatic conditions and also with dosage of VITCON 9013 SPA.	VITCON 9013 SPA is non-toxic and non-flammable. However, any contact with human body must be washed with plenty of water.	Storage : Under shade

## CURING COMPOUNDS

<b>VITCON 9021 RB</b>	VITCON 9021 RB is a synthetic resin emulsion based concrete curing compound with medium dispersed aluminium flakes. VITCON 9021 RB conforms to the specifications of ASTM C 309 Type 1 and BS 7542. VITCON 9021 RB is especially useful for curing pavement concrete, structural segments, pre-cast elements and so on. The membrane formed by the application of VITCON 9021 RB also imparts high water retention and reflection effect suitable for curing concrete at tropical atmosphere.	VITCON 9021 RB should be applied over the freshly placed concrete. A special care has to be taken to visualize no evaporation of surface water. VITCON 9021 RB forms a thin film on the concrete surface and the film should be protected from initial heat, rain or any thermal calamity. The film decays with time.	Reduces formation of cracks due to thermal stress. 9 Imparts high water retention efficiency. 9 Reflects sunlight reducing initial drying of concrete. 9 Homogeneous medium dispersed consistency.	Generally, VITCON 9021 RB covers around 5 to 7 square meter depending upon application technique, substrate porosity and climatic conditions. VITCON 9021 RB can be applied either by brush or roller or air-spray. Continuous stirring is recommended before actual application.	VITCON 9012 RB is non-toxic, non-flammable and non-hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Under shade
<b>VITCON 9021 WB</b>	VITCON 9021 WB is a ready to use synthetic white-pigmented concrete curing compound conforming to the specifications of ASTM C 309 Type 2. VITCON 9021 WB is especially useful for curing canals, pavement concrete, structural segments, pre-cast elements and so on. VITCON 9021 WB induces high reflection effect and better water retention for curing concrete at tropical atmosphere.	VITCON 9021 WB is normally applied over the green concrete just after evaporation of surface water. After drying, VITCON 9021 WB forms a thin film on the concrete surface, which decays with time. The film should be protected from initial heat, rain or any thermal calamity.	Improves water retention. 9 High reflectance helps to reduce fast drying of concrete. 9 Easy to spray. 9 Uniform film formation increases ultimate strength. 9 Reduces thermal cracks.	VITCON 9021 WB normally gives coverage of around 5 – 6 square meters depending upon application technique, substrate porosity and climatic conditions. VITCON 9021 WB can be applied either by brush or roller or air-spray.	VITCON 9012 WB is non-toxic, non-flammable and non-hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Under shade





Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 9021 AB</b>	VITCON 9021 AB is a high solids copolymer that cures concrete and provides a protective coating for interior and exterior concrete including terrazzo surfaces. It bonds tenaciously to concrete forming an inert, impervious film that is resistant to alkali from fresh cement, salts and many construction stains. It impregnates the top surface of a floor, making it highly resistant to the penetration of dirt and staining materials. VITCON 9021 AB complies to ASTM C 309 Types 1 & 1D, Class B.	Industrial floor slabs Parking garages Exterior pavements and roads Warehouses Walls and columns Dry shake hardened floors Terrazzo floors Passenger and freight terminals	Higher solids content for increasing curing efficiency □ Provides a clear curing film for new concrete □ Seals all concrete surfaces – old or new and easy to clean □ Hardens new concrete by promoting a proper cure for improved abrasion resistance □ Dustproofs concrete by impregnating surface pores with tough durable film □ Protects fresh concrete from rain damage after drying □ Compatible with many paints, adhesives and resilient floor coverings.	Consumption / Dosage 0.10 to 0.20 kg/m <sup>2</sup> depending on wind, humidity and temperature. Actual dosage to be finalised on the basis of site trials.	Use mask, nose cover and hand gloves during application □ Clean hands with soap water after application □ Ensure adequate ventilation and avoid inhalation of product □ Avoid contact with skin / eyes. In case of unlikely contact with eyes, rinse immediately with plenty of clean water, then cleanse with soap and lukewarm water and seek medical advice. Do not use solvent to clean the contacted area. □ Prevent swallowing. In case of unlikely swallowing, seek medical attention immediately. Do not induce vomiting.	Must be stored in original packing at ambient temperature, dry place under shed away from heat. The best use before end date of each batch appears on the product label.

## WATER PROOFING

<b>VITCON 2011 POLYKOTE</b>	VITCON 2011 POLYKOTE is a multifunctional acrylic polymer emulsion for enhancing properties of concrete, mortar and grout through better bonding, waterproofing and improvement in several other properties. VITCON 2011 POLYKOTE is used for permanently bonding plaster to ensure finish of exterior walls, bonding new concrete to damp / dry concrete, making mortar for repairing and for waterproofing.	Repair mortar for precast structural concrete members, toppings, patches and cracks. □ Toilet, sunken slabs, swimming pools, water tank, sewers, channels, aquariums and terrariums. □ Foundations, repairing walls, planters and concrete terraces, sealing and repair of asbestos panels, pipes and surfaces. □ Durable and aesthetic exterior finish with cement paint. □ Joining old concrete to new concrete.	Easy to use and excellent UV resistant. □ Improves bond strength, facilitating tough and hard wearing surfaces. □ Allows trapped vapour to escape thus preventing peeling / blistering. □ Reduces cracking through increased mortar flexural strength. □ Increases mortar tensile strength. □ Increases mortar wear resistance under rubber wheeled traffic.	Coverage / Dosage 2.5 kg/sqm for approx 1 mm thickness (2 coats)	Use mask and hand gloves during application. □ Clean hands with soap water after application. □ Product should not come in contact with the skin, eye or be swallowed. □ In case of contact with skin, rinse with plenty of clean water then cleanse with soap and water. Seek medical advice if irritation persists. □ In case of contact with eye, rinse immediately with plenty of clean water and seek medical advice. □ If swallowed seek medical attention immediately. Do not induce vomiting.	Must be stored in original packing at ambient temperature, dry place under shed. The containers must be protected from direct sunlight. The best use before end date of each batch appears on the product label.
<b>VITCON 2013 SBR</b>	VITCON 2013 SBR is styrene butadiene copolymer rubber that is designed as an integral adhesive for slurry bond coat, mortars and concrete to improve strength and weather resistance. The high flexibility of the copolymer makes the product best suitable for any concrete structural repairs applications.	General reconstruction work and latex modified overlays. Toppings, patches and leveling courses on concrete structured members. Thin sets, terrazzo, stucco and bonding slurries. Passivating coat on reinforcement	Improve structure durability by reducing the penetration of chlorides attack and other aggressive chemicals Dense, impermeable, mortar for column and beam repairs Improves bond strengths to hardened concrete Increases mortar tensile strength Reduces rate of corrosion while applied on steel bars Reduces cracking through increased mortar flexural strength Increases mortar wear resistance under rubber wheeled traffic	VITCON 2013 SBR is normally used in 5-10 litre/50 kg. cement bag. VITCON 2013 SBR is compatible with all types of portland cement, Sulphate Resistant cement and High Alumina cement.	Use mask and hand gloves during application.  Clean hands with soap water after application. Product should not come in contact with the skin, eye or be swallowed. In case of contact with skin, rinse with plenty of clean water then cleanse with soap and water. Seek medical advice if irritation persists. In case of contact with eye, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately. Do not induce vomiting.	Must be stored in ambient temperature, dry place under shed. Protect from direct sunlight.



Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 2012 FLEXIKOTE</b>	VITCON 2012 FLEXIKOTE is an elastomeric premium quality acrylic based coating best suitable for any waterproofing applications. The high solid acrylic content makes VITCON 2012 FLEXIKOTE more durable and effective for protection of concrete as well as metal structures.	Substrate Preparation The substrate to be treated has to be thoroughly cleaned and all loose particles, oil, grease, dust etc. should be removed. The cleaned surface then needs to be washed with clean water. For hairline cracks on concrete surfaces, thorough cleaning is recommended. But for cracks more than 2 mm has to be opened and cut in a shape of "V" groove. The cut groove is then filled with cement mixed with either VITCON 2013 SBR or VITCON 2011 Polykote depending upon the size and nature of cracks.	Excellent resistance to ultraviolet radiation. 9 Excellent bonding to all building substrates. 9 Forms a durable waterproofing breathable coating. 9 Reduces water permeability. 9 Improves resistance to alkali and carbonation effect. 9 Suitable for use in slightly damp conditions	Sealer Coat : 125 to 175 square feet per kg First Coat : 65 to 85 square feet per kg Second Coat : 75 to 95 square feet per kg The above coverage may vary depending on substrate and climatic conditions.	VITCON 2012 FLEXIKOTE is water based and non-hazardous. However, it should not be swallowed or allowed to come in contact with skin and eyes.	Store conditions under shade
<b>VITCON 9041 RAINKOTE MXB (WATER PROOFING COMPOUNDS)</b>	VITCON 9041 RAINKOTE MX B is a light brown coloured liquid to be added to the concrete or mortar for ensuring better waterproofing. VITCON 9041 RAINKOTE MX B has a very good miscibility with cement matrix. If a proper ratio of cement, sand & VITCON 9041 RAINKOTE MX B is maintained, water seepage through structures can be minimized.	VITCON 9041 RAINKOTE MX B is added in the concrete to achieve a non-permeable matrix reducing the water penetration. VITCON 9041 RAINKOTE MX B also shows dispersing effect enabling to reduce the total water demand in concrete. VITCON 9041 RAINKOTE MX B is the best suitable product for producing water retaining structures, terrace slabs, reservoirs and exterior plastering.	Reduces permeability in concrete. Compatible with all types of cement. Best suitable for water retaining structures. Prevents seepage in concrete. Economizes the mix with reduction in cement content.	VITCON 9041 RAINKOTE MX B is generally dosed @ 200 ml per 50 kg of cement. The dosage can also be varied from 0.2 to 0.6% by weight of cement depending on requirement. But it is always advisory to go for trial mix to determine the optimum dosage. The requisite quantity of VITCON 9001 is generally added to the concrete with gauging water.	VITCON 9041 RAINKOTE MX B is non-toxic, non-flammable and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water. Local exhaust is recommended for enclosed area.	Store conditions under shade

## TILE ADHESIVE AND JOINT FILLERS

<b>VITCON 211 TILE FIX</b>	VITCON 211 TILE FIX is a cementitious base powder specially formulated for adhesion of ceramic tiles and marble cladding to building surfaces. VITCON 211 TILE FIX is comprised of selected grades of Portland cement admixed with synthetic polymeric additives to suit various requirements of thick/thin bed performance.	Addition of water in powder at the ratio of approximately 1:2 or 1:3 by weight depending upon the requirement in consistency for different applications. 2. Gently stir the mix with trowel until a uniform thick consistency is achieved. 3. Apply the mix directly to the surface and press the tile firmly over it. The process can be alternated with applying the mix to the back of the tile and pressing it on the surface. Tiles used should be pre-soaked in water. A 3mm thickness between tile and the surface is recommended for better performance. 4. Remove the surplus mixture from the tiles with a damp cloth. We recommend leaving the tiles for 24hrs after fixing before filling the joints with VITCON 212 TILE JF or equivalent material.	Easy application. □ Slow setting property helps the mason to adjust and align the tiles or cladding to achieve a perfect finish. □ Makes the surface watertight beneath the tiles – best use for swimming pools, bathrooms, toilets and underground structures. □ Low shrinkage helps better bonding with the surface.	VITCON 211 TILE FIX mixed with water normally gives coverage of 40 - 45 square feet for a bed thickness of 3 mm. The coverage also depends upon the substrate condition and application procedure.	VITCON 211 TILE FIX is non-toxic, non-flammable and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Away from direct sunlight.
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Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON SEALANT 9003 PG</b>	VITCON SELEANT 9003 PG are two component sealant based on THIOKOL Polysulphide liquid elastomer. It consists of a 'base' compound and accelerator (curing agent). When two component are mixed together prior to application, a chemical reaction is initiated which cures insitu to a firm, flexible rubber like seal with excellent adhesion to concrete, masonry, wood, glass, acrylic and PVC plastics. It is capable of withstanding repeated extension, compression & cyclic movements without loss of adhesion and resists deterioration by weathering, sunlight, ozone, water, salt, oils and fuels. It is far superior to all the conventional joint sealant material like bitumen, mastics, metallic channels and expansion sheets. VITCON SELEANT 9003 PG is a pouring grade material used for sealing of horizontal joints.	<b>SURFACE PREPARATION</b> 1. Surface preparation is the most important steps before application of sealant to get best results and to avoid failure. 2. The Joint surface must be dry, free from dust, coating, bituminous mastics, concrete curing agents, mould release agents, oils, greases and loose particles. 3. Clean the joint surface by wire brush & sanding with emery paper. 4. Remove dust by compressed air or paint brush. 5. Wipe out oil and grease by solvent soaked cloth (such as xylene, toluene or acetone.) <b>Tooling and Finishing</b> It is desirable that a smooth surface is obtained. Tool the sealant by pressing the puffy knife or flat tool against the sealant surface, moving along the length of the joint. Tooling breaks air bubbles and exposes any air pockets present. Tooling compresses the sealant, thus promoting adhesion to the joint sides. After tooling the masking tape should be removed immediately. Soap solution can be used to smoothen the sealant surface. <b>Coverage</b> Sealant To estimate the quantity of TECHSEAL required to seal the joint can be very easily estimated by using the following formula 1. $L = 625 / (W \times D)$ Where, L = Length of the joint in linear running meter W = Width of the joint in mm. D = Depth of the joint in mm Primer : 1 lit. of primer is required per 15kgs. of sealant.	Cures at ambient temperatures to a tough, elastic and flexible rubber like material. Bonds strongly to most of the building material with the use of recommended primer. Durable, remains unaffected by UV rays, ozone and weathering conditions. Resist to water, salt water, 10% dil. acids except nitric acids, alkalies, most of the common chemicals, vegetable, lubricants, oils and fuels. It performs well in a temperature range from -40°C to 80°C intermittent. Slip resistant (sag) can be applied in a horizontal joints. Movement capability - Provides satisfactory hermetic sealing of the joint subjected to expansion, contraction, vibration and cyclic movement within the following limits. - Movement joints upto + 25% of the width. Resilient recovers the original width after expansion & contraction without the losing the surface bond. Excellent repair ability property. It can be over coated by waterproofing compounds. Non toxic. Sealants will not cause staining to concrete masonry or stones. Fuel Resistance. Fire Resistance.	Sealant To estimate the quantity of TECHSEAL required to seal the joint can be very easily estimated by using the following formula - 1. $L = 625 / (W \times D)$ Where, L = Length of the joint in linear running meter W = Width of the joint in mm. D = Depth of the joint in mm. Primer : 1 lit. of primer is required per 15kgs. of sealant.	Some people are sensitive to resins, hardeners, solvent and its vapours so it is advisable to use hand gloves and goggles. Avoid application below 10 °C temperatures. Avoid application and damp or moist substrate. Storage – store at cool & dry place. Ensure that two coats of primer are applied on the jointing surfaces V.	Store the material at cool and dry place (at 25 °C temp. & 50% RH) Shelf life is one year in unopened containers
						
<b>FLOOR HARDNER</b>						
<b>VITCON 9045 HARD TOP FLOOR</b>	VITCON 9045 HARD TOP FLOOR is a pre-packed readymade compound with hard granules of predetermined sizes. The physical characteristic of this mineral originated powder mix is to enhance the surface strength of concrete floors and also to impart abrasion resistance against traffic movement.	VITCON 9045 HARD TOP FLOOR is very suitable for making floors in industrial segment, warehouses, mechanical engineering workshops, precision engineering workshops, parking lots, and garages etc where hard and dust resistant floors are of importance.	Increases abrasion resistance of concrete.  Enhances resistance against mechanical wear.  Easily applicable by spreading over the green concrete.  Increases coverage of the given mix quantity.  Being non-metallic the product ensures a corrosion resistant hard floor.	VITCON 9045 HARD TOP FLOOR should be sprayed with a consumption of 3.5 to 5.5 kg per square meter depending upon the traffic movement and wear resistance required.	VITCON 9045 HARD TOP FLOOR is non-toxic, non-flammable and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Away from moisture & heat

## GROUTS

Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON GROUT 2053 NSC</b>	VITCON GROUT 2053 NSC is a ready to use dry cementitious powder admixed with polymer additives. On addition a controlled amount of free water, VITCON GROUT 2053 NSC produces a free flowing, non-shrink grout for gap thicknesses up to 100mm. The free flow grout exhibit a controlled expansion in the plastic state to counter balance shrinkage effect. Moreover, this also imparts a high strength at early and ultimate stages.	Surface Preparation, Pre-Soaking, Formwork, Mixing, Placing, Curing , Cleaning.	<ul style="list-style-type: none"> <li>Ready to use product without any hassle.</li> <li>Controlled expansion compensates plastic shrinkage and settlement.</li> <li>Ensures high early and ultimate strength.</li> <li>Chlorides free – no corrosion effect.</li> <li>Reduces permeability to ensure the durability of the hardened grout.</li> <li>Free flow- uniform level of contact with load bearing area.</li> </ul>	VITCON GROUT 2053 NSC is normally used for general purpose grouting where a W/P ratio of 0.15 to 0.16 is recommended. For special purposes, the W/P can be varied up to 0.14 and 0.18 respectively. But it is always recommended to make trial mix before making actual application at site to optimize the consumption of water.	VITCON GROUT 2053 NSC should not come into contact with skin and eyes. Avoid inhalation of dust during mixing. It is advised for any contact with skin, wash with plenty of water	Keep in cool dry place, under shed, away from the heat.
<b>VITCON GROUT 2052 N</b>	VITCON 2052 N is normal free flow non-shrink grout specially designed for use where high strength and normal fluidity is required. It is formulated as a natural aggregate system with a shrinkage compensating binder and is flow-able without sacrificing strength or performance capabilities. VITCON GROUT 2052 N is formulated to provide consistency and exacting performance in critical grouting operations. This also can be used as a repair product in various types of application in the projects.	Heavy duty grouting of machinery and equipment Bridge seats Structural Columns Bending plates Crane rails Anchorages	<ul style="list-style-type: none"> <li>Highly fluid and extremely placeable for easy field use</li> <li>High strength for maximum load bearing</li> <li>Non-shrink with minimum positive expansion for high tolerance</li> <li>Total shrinkage compensation, which provided a maximum bearing surface for the greatest overall support</li> <li>Excellent working time at high ambient temperatures.</li> <li>performance</li> <li>Non bleeding and non segregating at a fluid consistency</li> <li>Does not contain any chlorides or additives which may contribute to corrosion of base structure</li> <li>Rapid strength gain to minimize turn around time for equipment regrouts</li> </ul>		<ul style="list-style-type: none"> <li>Use goggles and hand gloves during application</li> <li>Clean hands with warm soap water after application</li> <li>Avoid contact with skin/eyes.</li> <li>In case of unlikely contact with eyes, rinse immediately with plenty of clean water, then cleanse with soap and lukewarm water and seek medical advice.</li> <li>Do not use solvent to clean the contacted area.</li> <li>Prevent swallowing. In case of unlikely swallowing, seek medical attention immediately. Do not induce vomiting.</li> </ul>	Must be stored in original packing, in ambient temperature, dry place under shed. Protect from direct sunlight.



## ROCK ANCHORING

<b>VITCON 7001 ANCHOR C</b>	VITCON 7001 ANCHOR C is a ready to use cementitious powder based anchoring capsule with a perforated skin. VITCON 7001 ANCHOR C imparts controlled expansion characteristics stabilizing the grout system to achieve high early strength. VITCON 7001 ANCHOR C is mostly used for fixing of steel rock bolts or wooden dowels to control rock strata during tunneling and mining		<ul style="list-style-type: none"> <li>Ready made dry capsule</li> <li>Easy to apply</li> <li>Non shrink- reduces development of cracks and ensures effective contact</li> <li>Chloride free</li> <li>Thixotropic property reduces loss of grout during overhead application</li> </ul>		VITCON 7001 ANCHOR C is non toxic, non flammable and non hazardous. Any splashes on the skin should be washed immediately with water. Splashes on the eyes should be washed immediately with water and seek medical advice.	Must be stored in original packing at temperature below 25 °C dry place under shed. Protect from direct sunlight.
						

Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 7002 ANCHOR R</b>	VITCON 7002 ANCHOR R is a ready to use polyester resin based anchoring capsule with measured proportion of catalyst and non-reactive filler. VITCON 7002 ANCHOR R provides a unique method of anchoring bolts into rocks or concrete, used during tunneling for rock stabilization.		Ready to use product □ Fast development of strength □ Total resistant to chemical and corrosive environments met in tunnels and drivages □ Easy to apply with permanent anchorage □ Prevents bed separation totally because of reduction in setting time □ Distributed anchorage with no localized high stress		VITCON 7002 ANCHOR R is non toxic, non flammable and non hazardous. □ Any splashes on the skin should be washed immediately with water. □ Splashes on the eyes should be washed immediately with water and seek medical advice.	Must be stored in original packing at temperature below 25 oC dry place under shed. Protect from direct sunlight.

## MEMBRANES

<b>VITCON 14001 MEMB</b>	VITCON 14001 MEMB is a pre-fabricated polymer modified bitumen membrane designed for economy and easy applications. VITCON 14001 MEMB has two different types- one is reinforced with non-woven polyester fabric names as VITCON 14001 MEMB "P" and second one is reinforced with a glasfiber mat named as VITCON 14001 MEMB "G". The reinforcement is impregnated and coated on both sides with polymer-modified bitumen.	VITCON 14001 MEMB is ideal for a wide range of waterproofing applications including roofs, basements, tunnels, car parks and reservoirs.	Total impermeability. Good bondability & seam integrity. Stability at high temperature. Good flexibility. Compatible with all normal roofing and building components.	Flat Areas : 1.15 m2 / m2 per layer with 10 cm side laps and 15 cm end laps. Base Flashing : 100 x 35 cm with 15 cm end laps ; 0.40 m2 per Linear M.	VITCON 14001 MEMB is non-toxic and non-flammable. However, safety precautions should be taken during torch applications.	
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## FLOOR HARDNER

<b>VITCON 9045 NM</b>	VITCON 9045 NM is a pre-packed readymade compound with hard granules of predetermined sizes. The physical characteristic of this mineral originated powder mix is to enhance the surface strength of concrete floors and also to impart abrasion resistance against traffic movement.	VITCON 9045 NM is very suitable for making floors in industrial segment, warehouses, mechanical engineering workshops, precision engineering workshops, parking lots, and garages etc where hard and dust resistant floors are of importance.	□ Increases abrasion resistance of concrete. □ Enhances resistance against mechanical wear. □ Easily applicable by spreading over the green concrete. □ Increases coverage of the given mix quantity. □ Being non-metallic the product ensures a corrosion resistant hard floor.		VITCON 9045 NM is non-toxic, non-flammable and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Away from moisture & heat
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## DE-SHUTTERING AGENTS

<b>VITCON 9032 RELOL</b>	VITCON 9032 RELOL is light brown ready to use formwork release agent. VITCON 9032 RELOL is based on synthetic oil modified with selective additives. VITCON 9032 RELOL is specifically formulated for smooth release of concrete from surface of formworks used in construction industry.	VITCON 9032 RELOL is applied on the formwork after cleaning the loose particles off the surface. The coating should be ensured to be uniform all throughout the surface.	□ Smooth release. □ Easy to apply on any surface. □ Helps to achieve excellent surface finish in concrete. □ Zero contamination with concrete.	VITCON 9032 RELOL is generally applied on the formwork surface either with brush or spray. The coverage is normally 30 – 35 square Metre per litre depending on porosity of substrate.	VITCON 9032 RELOL is non-toxic and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Under shade
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Product	Description	Usage	Advantage	Dosage/Coverage	Health & Safety	Storage
<b>VITCON 9033 RELOL WEM</b>	VITCON 9033 RELOL WEM is pale ambour coloured concentrated mould release emulsion used for formworks used in the construction industry. The concentrated solution has to be diluted with water before applying to get a stain-free release of moulds after placing of concrete. VITCON 9033 RELOL WEM is based on refined speciality oils and fatty acids blended with special additives. VITCON 9033 RELOL WEM is specifically formulated for wooden formworks where release of formworks is extended for extended hours.	VITCON 9033 RELOL WEM is applied after dilution on the formwork surface after cleaning the loose particles or any contaminated oils off the surface. Only one coat has to be applied with a thin film thickness. Excess thickness may result in surface dusting of concrete. The second coat is only recommended for high absorbent new timber formworks. The coating should be ensured to be uniform all throughout the surface. The coating should be allowed to dry before placing of concrete. The freshly applied formworks have to be protected from rainfall; otherwise the emulsion will be diluted before drying resulting in poor performance.	□ Smooth release of formworks. □ Non-staining which minimizes cleaning of oils. □ Can be used for any formwork – best efficiency with wooden moulds. □ Economical - better surface coverage.	VITCON 9033 RELOL WEM is to be diluted with water at a ratio 1:3 by volume before applying on the surface. The dilution ratio can be varied after proper site trials. The diluted solution has to be applied on the face of formwork either with brush or spray or cloth. The coverage for 1:3 dilution is normally 100 – 175 square meter per liter per coat depending on porosity of substrate.	VITCON 9033 RELOL WEM is non-toxic and non hazardous. However, any splash on the human body should be washed out immediately with plenty of water.	Storage : Under shade





# POLYGON

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