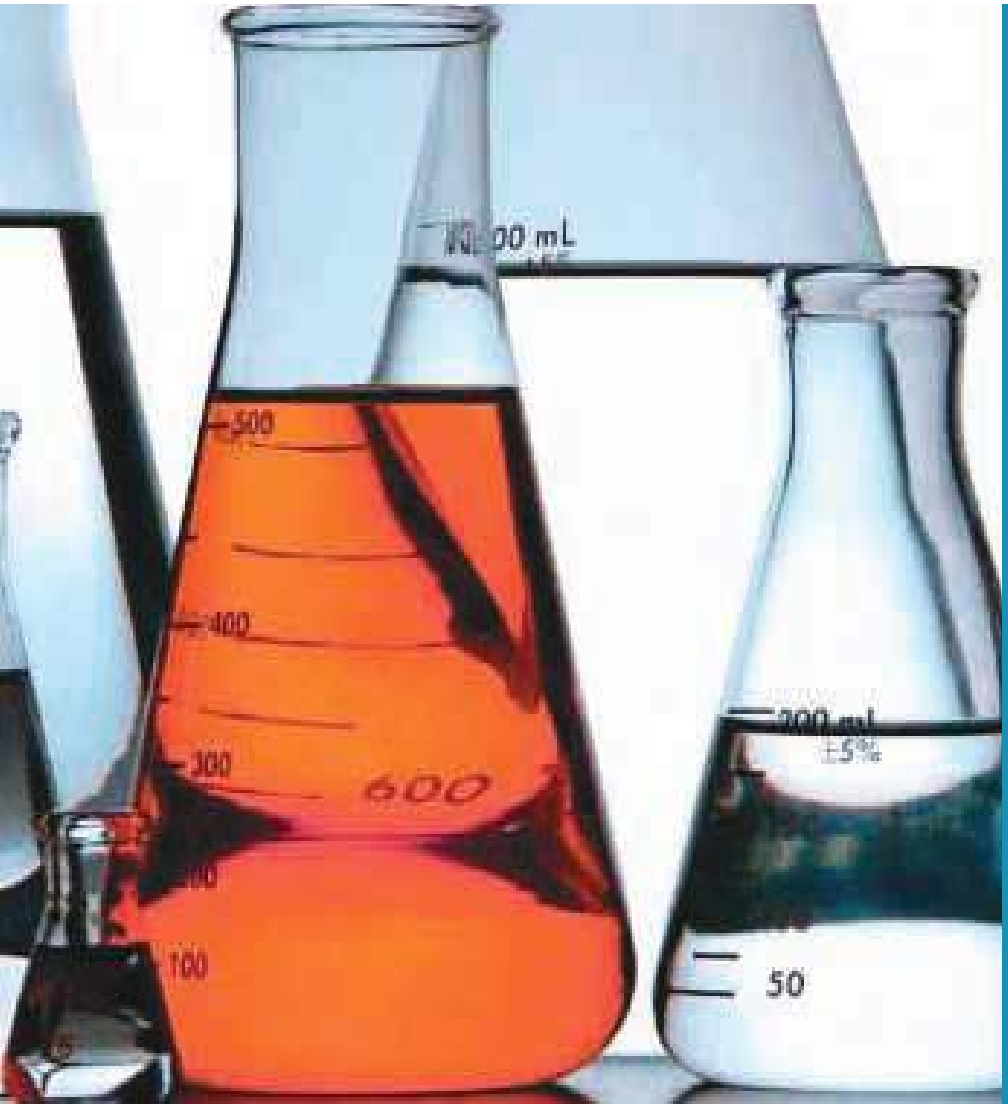
VISWAAT

Viswaat Chemicals Ltd.

Responsible Care®

Additives for Construction Chemical Industry

An IMS (ISO 9001:2015 ISO 14001 : 2015 and OHSAS 18001:2007) Certified Company



Viswaat Chemicals Limited an IMS (ISO 9001:2015, ISO 14001: 2015 and OHSAS 18001: 2007) certified company began its operations in the year 1999. The company's business model consists of manufacture and sale of various specialty chemicals catering to diverse industries, such as construction, cosmetics and personal care, pharmaceuticals, paints, textiles etc. As an evolving company, Viswaat believes in creating enduring products developed through high quality of innovation and good manufacturing practices with utmost concern towards the OHS of all its partners.

Its commitment to Research & Development has been duly acknowledged and today the R&D facility of Viswaat is recognized and approved under the **Department of Science & Industrial Research (DSIR, GOI)**. In addition to this its manufacturing site at Ambernath is a **TFS (Together for Sustainability)** certified facility.

Construction Chemicals

Viswaat Chemicals Ltd. with its ever expanding range of Speciality Chemicals introduces various range of chemicals for Construction Chemical Industries.

Construction Chemicals are value added inputs for the Construction Industry. They are used in existing concrete structures to impart desired characteristics like durability, strengthening etc. and improve the productivity of the construction by increasing the life of the structure.

It's team of technical experts alongwith the marketing team studied the product need of this industry and today feel proud to announce its range of **Construction Chemicals.**

VICAMOL C22

PARAFFIN WAX EMULSION

Paraffin wax emulsion is most commonly used in manufacturing of Construction Chemicals for protection of concrete against corrosion and rust by improving water resistance as water can weaken or damage concrete. The product is recommended for use in cement admixtures as curing additives.

VICAMOL C22 is a free flowing, homogenous, aqueous wax emulsion manufactured by Viswaat Chemicals Limited, by proper selection of Emulsifiers and maintaining the right combination of wax and Emulsifier. The product is Cationic in nature.

SPECIFICATIONS :

PARAMETERS	SPECIFICATIONS
Appearance	Free flowing milky white emulsion
pH (as such)	4.5-5.5
Total solids content	40 +/- 2%
Viscosity @ 30Deg C by B4 Cup in second	25.0 Max
Nature	Cationic
Dilution Stability (1:1)	Stable

HANDLING & Storage :

Material should be stored under shade at temperature about 28 - 30 Deg C. Exposure to direct sunlight is to be avoided. Containers should be properly closed to prevent surface evaporation of the material.

VICASOL TEA

TRIETHANOLAMINE 85 %

Synonyms	:	Triethyloamine, Triolamine, Trolamine , Tris (2- hydroxyethyl) amine
C.A.S. No.	:	102 - 71 - 6
Molecular Formula	:	$C_6H_{15}NO_3$
Molecular Weight	:	149

SPECIFICATIONS :

Appearance & Color	:	Clear colourless to pale yellow viscous liquid
Triethanolamine Content (% by mass)	:	85 % Min
Specific Gravity @20 C	:	1.123 – 1.127
pH	:	10.5
Equivalent mass	:	140 Min
Moisture (K.F.)	:	1.0 % Max
Diethanolamine content %	:	13 Max
Monoethanolamine %	:	02 Max

Source : Viswaat specification

APPLICATIONS :

In Construction Chemical Industries :

- As cement grinding aid, to improve grinding efficiency, reduce energy consumption without compromising the performance of the cement.
- As curing additives in Cement Admixtures.

Other Uses :

- As pH adjustor in fragrance ingradients.
- As an intermediate in corrosion inhibitor formulations

VICASOL TIPA

TRI ISOPROPANOL AMINE 85 %

Synonyms	:	Tris (2-Propanol) amine
C.A.S. No.	:	122 - 20 - 3
Molecular Formula	:	$N[CH_3CH(OH)CH]_{2\,3}$
Molecular Weight	:	191.27

SPECIFICATIONS :

Appearance & Color	:	Colorless / pale yellow to amber clear liquid.
Specific Gravity @20 C	:	1.020 - 1.040
pH (50% Solution)	:	10.0 - 11.50
Moisture content, (K.F.) method	:	12 - 15 %
Active content, (Solid content, 110C/2hr)	:	85.0 % Min
Purity by GC		
Monoisopropanol Amine	:	2.00 % Max
Diisopropanol Amine	:	5.00 % Max
Triisopropanol Amine	:	95.0 - 100 %
Source : Viswaat specification		

APPLICATIONS :

In Construction Chemical Industries :

- Tri Isopropanol Amine is a type of surface treating agent, widely used in cement industry.
- The cement and concrete industries use TIPA as a grinding aid and it is used in concrete admixtures.

Other Uses :

- As Gas Scrubber in Natural and Refinery Gas Operation.
- As crosslinking catalyst in polyurethane production.

VICASOL MV SERIES

VICASOL MV 01 & VICASOL MV 03
Diethanol - isopropanolamine (DEIPA)
Triethanol - isopropanolamine (TEIPA)

Diethanol-isopropanol amine (DEIPA) and Triethanol-isopropanol amine (TEIPA) are alkanol amines used in the formulations of cement additives and concrete admixtures. Besides being a good grinding aid in the cement mill, DEIPA increases the strength of cements at all hydration ages, and cements blended with fly ash and slag tend to show a greater response to the chemical.

Product Name	Appreance @ 35°C	pH (2% aq.)	Water Content, %	Specific Gravity @ 27+/-2°C	Purity / Active content
Diethanol - Isopropanolamine DEIPA VICASOL MV 01	Clear,Colorless to pale yellow,slight viscous liquid	**9.0 - 11.0**	**6.0 - 15.0 %**	**1.074 - 1.084**	Diethanol isopropanol amine : **85%** Diethanol amine : **5.0 % Max** Triethanolamine : **1.0 % Max**
Triethanol - Isopropanol Amine TEIPA VICASOL MV 03	Clear,Pale yellow to yellow,slight viscous liquid	**10.0 - 12.0**	**6.0 - 15.0 %**	**1.100-1.110**	Triethanol isopropanol amine : **85%** Diethanol amine : **5.0 % Max**

Usage :

DEIPA or **TEIPA** may be added to the clinker during the finish grinding stage to help reduce the energy require ments and provide a uniform free flowing cement powder with reduced tendency to form lumps during storage.It is also possible to add the subject additives as an admixture to powdered cement either prior to, in conjunction with, or after the addition of water when effecting the hydraulic setting of the cement.They may also be used in combina tion with other chemical admixtures, including but not limited to accelerating admixtures, air entrainers, air detrain ers, water reducing admixtures, retarding admixtures.The additives may be used with ordinary cement or with blended cements.

VICAMOL MPEG

Product Name	Appearance @ 25^0	Colour, APHA	Molecular Weight	pH (5% aq)	Moisture Content %
VICAMOL MPEG 500	Clear Liquid	100 Max	475 - 525	4.50-7.50	0.50 max
VICAMOL MPEG 750	Paste	100 Max	700 - 800	5.50-7.50	0.50 max
VICAMOL MPEG 1000	Solid	100 Max	900 - 1100	5.50-7.50	0.50 max
VICAMOL MPEG 2200	Pasty White Solid / White Solid	100 Max	2100 - 2300	5.50-7.50	0.1 max
VICAMOL MPEG 3000	Solid	100 Max	2850 - 3150	5.50-7.50	0.50 max

VICORYL ALE SERIES

Product Name	Appearance @ 25^0	Colour, APHA	Molecular Weight g/mole	pH (1% aq)	Moisture Content %
VICORYL ALE 350	Colorless to light yellow liquid	80 Max	345 - 385	5.5 - 7.5	0.50 max
VICORYL ALE 500	Colorless to light yellow liquid	80 Max	490 - 525	6.5-7.5	0.50 max
VICORYL ALE 700	Viscous Liquid/Paste	80 Max	725 - 800	4.5 - 7.5	0.50 max
VICORYL ALE 1000	White Paste/ Solid	80 Max	950 - 1100	4.5-7.5	0.50 max
VICORYL ALE 1200	White to creamy white solid	80 Max	1100 - 1275	4.5 - 7.5	0.50 max
VICORYL ALE 2250	White Solid	80 Max	2050 - 2300	4.5-7.5	0.50 max

Applications : In Construction Chemical Industries,

Used to make final product Poly Carboxylate type water reducing agent which are currently applied in high speed railways, multistorey building, subway and so on which normally required high strength and excellent durability

VICORYL VPEG 2400

Product Name	Appreance @ 25°C	Color ALPA	Molecular Weight	pH (1% aq)	Moisture Content %
VICORYL VPEG 2400	White to off White Solid / Flakes	80 max	2200-2600	5.5 - 7.5	0.50 max

VPEG is made by reaction of ethylene oxide with methallyl alcohol and VPEG`s main usage is producing PCA type (polycarboxylate) water reducing agent.

VPEG normally reacts with acrylic acid and other polymers and its final product called PCA(polycarboxy late type water reducing agent) are applied in multistorey buildings, bridges, high speed railway tracks etc., which requires high strength and excellent durability.

THIRD GENERATION POLYCARBOXYLATE ETHER (PCE) SUPERPLASTICIZER

Viswaat's latest contribution to the ever-changing needs and requirements of the construction industry is the new generation of superplasticizers. These are innovative versatile admixture based on third generation Polycarboxylate ether (PCE) polymers. Its configuration allows it to perform as a multi-functional admixture; it is possible to obtain a high quality concrete mix with good strength development and extended workability without delayed setting characteristics. These additives show extremely high water reduction by almost 20-30% depending on use in concrete with improved workability and improved strength. The PCE's developed by us show good workability in concrete at even at water cement ratios as low as 0.3. Viswaat's PCE additives are based on genuine in-house technology and meet international standard and quality as far as performance is concerned.

Features

- **Improves workability in fresh concrete.**
- **Up to 30% water reduction.**
- **Higher strengths may be achieved more economically.**
- **Improves cohesiveness and reduces concrete segregation.**
- **Beneficial in all types of high strength concrete applications.**
- **Increases durability & impermeability.**
- **Due to increased workability, placing and compaction is easier.**

Areas of Application

- **All types of cement, Manufactured / Crushed Sand.**
- **Ready-mix concrete with stable workability.**
- **Concrete of humid, plastic or fluid consistency.**
- **Pumped concrete and Pre-stressed concrete.**