VEXCOLT

VX Carbon Saturant

VX Carbon Saturant is a specially formulated epoxy resin system fully compatible with Vexcolt reinforcements used for strengthening and retrofitting of existing concrete, masonry and timber structures. VX Carbon Saturant is a two component system consists of resin and hardener. VX Carbon Saturant resin is a bisphenol-A based epoxy resin. VX Carbon Saturant hardener is a moderate viscosity, modified amine hardener.

ADVANTAGES

- Simple and tolerant mixing ratio.
- Solvent free- Low VOC
- Moderate viscosity resin/hardener mix, ensures proper flow.
- Excellent water resistance.
- Excellent covering of substrate surface.

TECHNICAL SPECIFICATIONS: RESIN (PART A)

Characteristic	Test Method	Unit	Specification
Appearance	Visual	–	Blue Color, viscous liquid
Viscosity at 25°C	ASTM D2196	cP	9000 - 13000
Density at 25°C	ASTM D891	g/cc	1.1 - 1.3
Storage life at 25°C	–	Years	1

TECHNICAL SPECIFICATIONS: HARDENER (PART B)

Characteristic	Test Method	Unit	Specification
Appearance	Visual	-	Amber color, moderate viscosity liquid
Viscosity at 25°C	ASTM D2196	cP	500 – 1200
Density at 25°C	ASTM D891	g/cc	0.92-1.0
Storage life at 25°C	-	Years	1

CAST EPOXY PROPERTIES

Description	Test Method	Units	Specifications
Tensile strength	ASTM D638 Type-1	MPa	50 Min.
Tensile modulus	ASTM D638 Type-1	GPa	2.5 Min.
Ultimate elongation	ASTM D638 Type-1	%	3.5 Max.
Flexural strength	ASTM D790	MPa	90 Min.
Flexural modulus	ASTM D790	GPa	3.5 Min.
Cured density	ASTM D792	g/cc	1.23

PROPERTIES OF THE SYSTEM

Mix ratio	VX Carbon Saturant resin: VX Carbon Saturant hardener 100 : 40 (w/w)
Mixed viscosity	(cps at 25 deg C) 4000 ± 500
Pot life at 25-28°C	30 – 40 minutes
Gel time at 25-28°C	55 minutes
Tack free time at 25-28°C	3 – 4 hours
Full cure time	7 days
Adhesive strength to concrete (ASTM D7234)	>2 MPa nominal (VX Carbon Prime and VX Carbon Saturant)

PACKAGING

Pack sizes available: 5 Kg, 20 Kg

BATCH PREPARATION

The batches should be prepared in clean containers, avoid any type of contamination. Prepare batches in small quantities. Add the resin and hardener in the prescribed ratio and mix thoroughly for 5-7 minutes. Allow to stand the mixture for 5 minutes before application. Consume the batch within 20-25 minutes.

APPLICATION

Apply one coat of VX Carbon Prime system by roller or brush and wait until dry to apply the second coat. If necessary, apply a coat of VX CPT using a putty knife, to fill any blow holes or imperfections to the concrete or timber surfaces. Apply VX Carbon Saturant by brush or Applicator roller on the surface. Ensure the entire surface to be treated is wet by saturant. Apply one more coat if necessary. Apply VX Carbon Saturant on Vexcolt to saturate it; remove excess resin by pressing roller on to it. Apply saturated Vexcolt on the surface. In case of application of more than one layer, ensure the dryness of the previous layer.

STORAGE, HANDLING AND DISPOSAL

Storage	Store in a cool, dry place
Shelf life	As given in the product specifications
Handling	Use hand gloves and protective glasses
Disposal	Dispose by incineration or as per local regulations

SAFETY INFORMATION

Flash point	>150^{0}C
Precautions	In case of skin contact, wash with soap and water. In case of eye irritation, bathe the affected eye with running water for at least 15 minutes, and get immediate medical attention.
Special Care	The reaction is exothermic and mixture will be heated up, hence should be applied quickly after mixing. (please prepare small batches