Technical Data Sheet
Smart Roofer TopCoat

SMART ROOFER RESIN Fire Retardant Base TopCoat

SMART ROOFER TOPCOAT is a colour tinted halogen free flame retardant base topcoat. This topcoat is based on a special formula of resin and mineral fillers. This topcoat has good resistance to flame and low smoke formation.

Typical liquid topcoat properties

Property at 23˚C	H (Brush)		
	Value	Unit	Method
Viscosity, Brookfield RV5, 10 rpm	18000	mPas	ISO 2555
Viscosity, cone & plate	900	mPas	ISO 2884
Geltime, 2% MEKP-50	12	min	ASTM D2471
Density	1,50	g/cm³	ISO 2811

Typical topcoat base resin properties

Property (postcure 24h at 50˚C)	Value	Unit	Method
Tensile strength	70	MPa	ISO 527
Tensile modulus	3600	MPa	ISO 527
Elongation at break	3,5	%	ISO 527
Flexural strength	115	MPa	ISO 178
Flexural modulus	3500	MPa	ISO 178
Heat Deflection Temperature	70	˚C	ISO 75(A)
Water absorption after 28 days	80	mg/sample	ISO 62
Hardness	42	Barcol	ASTM D2583

Application and use

SMART ROOFER halogen free flame retardant base topcoat is suitable for a variety of FRP products which require good flame retardant properties. SMART ROOFER base topcoat is mainly used in the roofing, building and construction industry.

To achieve best results the final cured topcoat thickness should be 300-400 microns.

Note: For more information on application and use of fire retardant topcoats and resins, please contact Smart Roofer sales and technical service personnel.

Fire retardant properties of the ready-made topcoat

Test	Value	Method
Oxygen index	26	ASTM D2863-70
Epiradiator test	M2	NF 92-501
Smoke test	F1	NF F 16-101
Class of Fire	S 4	DIN 5510-2:2009-05
Smoke test	SR 2	DIN 5510-2:2009-05
Class of Material dropping in $fire_1$	ST 2	DIN 5510-2:2009-05
Toxicity, t(zul)=30 min	< 1	DIN 5510-2:2009-05
Toxicity, t(zul)=15 min	< 1	DIN 5510-2:2009-05

Structure: Topcoat with Smart Roofer Resin

Certificates and approvals

The manufacturing, quality control and distribution of products, by Smart Roofer are complying with one or more of the following programs or standards: Responsible Care, ISO 9001, ISO 9002, ISO 14001 and OHSAS 18001 by.

Note: The values given for fire resistance are purely indicative. The finished parts manufactured by our customers must be tested accordingly to the laws in force or to specific technical specifications. Optimum fire resistance is obtained on completely hardened resins and laminated parts.

Handling and use

It is highly recommended that all materials are stored at stable temperature under 25˚C preferably indoors, and away from direct sunlight. A high quality methyl ethyl ketone peroxide (MEKP) hardener such as Smart Roofer Hardener should be used between 1.5 – 2.5 %. The topcoat with the hardener must be gently stirred before taken in use.

Shelf life of SMART ROOFER TOPCOAT is 4 months. Prolonged storage or storage outside of recommended conditions can influence topcoat liquid properties like viscosity and gel time and it is recommended to test these properties before starting application.

Notice

All information presented resin is believed to be accurate and reliable, and is solely for the user's consideration, investigation, and verification. The information is not to be taken as an express or implied representation or warranty for which Smart Roofer assumes legal responsibility. Any warranties, including warranties of merchantability, fitness of or use or non-infringement of intellectual property rights of third parties, are herewith expressly excluded.

Since the user's product formulations, specific use applications and conditions of use are beyond the control of Smart Roofer, Smart Roofer makes no warranty or representation regarding the results which may be obtained by the user. It shall be sole responsibility of the user to determine the suitability of any of the products mentioned for the user's specific application.

Smart Roofer requests that the user reads, understand and complies with the information contained herein and the current Material Safety Data Sheet.