

BÜFA®-Firestop S 520

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BÜFA®-Firestop S 520 is a pre-accelerated, thixotropic injection resin. It is also highly reactive and low viscosity. It is manufactured from a special DCPD resin dissolved in styrene. The resin is halogen-free, containing aluminum hydroxide as a flame retardant.

Profile

Product type	Resin
System	FIRESTOP
Pre-accelerated product	Yes
Colour	blue
Odour	like styrene

Application Range

BÜFA®-Firestop S 520 is used for the production of molded parts with fire protection properties using the RTM process.

Specification / Technical Data

Density (BM D01) approx.	1.45 g/mL
Flashpoint (BPV FP 02) approx.	31°C
Styrene content approx.	25.4 %
Viscosity (BM V01) Viscosity at 20°C with spindle 3 and 20 rpm	600 - 1,000 mPas

The BÜFA testing standards define the testing scenario after the values are determined in our facilities. They relate to generally accepted standards and are available under request.

Curing

Reactivity	BM R01
Sample size	100g sample
Peroxide addition	2.0 vol% Curox M-303
Geltime (Reactivity 20-30°C)	11 - 18 min
Curing time (Reactivity 20°C-Tmax)	25 - 35 min
Tmax (Reactivity Tmax at 20°C)	130 - 150 °C

To achieve optimum mechanical and fire protection properties, the moldings must be post-cured at + 80 °C for at least 6 hours.

BÜFA®-Firestop S 520 can be cured with the commercially available ketone peroxides.

ATTENTION! The above information refers exclusively to the use of the peroxides mentioned here in the indicated dosage. If other products are used or if the dosage differs, the results may vary.

Processing

The resin should be stirred gently before use.

Before use, the resin should be tempered to temperatures of approx. 18 - 23 °C suitable for processing. Otherwise, both the viscosity and thus the impregnation behavior as well as the curing will be negatively affected.

The thickness of the laminate and its overall structure - including any top layers, coatings, applications, sandwich inserts, etc. - also have a decisive influence on fire properties. It is necessary to take into account that individual component tests are prescribed for most applications in accordance with the relevant fire protection standards. In the injection process, an endless mat (450 g/m²) is ideally used, which guarantees the best possible flow result. To optimize the surface quality, an emulsion-bound mat 300 g/m² or a glass fleece (80 g/m²) can be used in the first layer directly behind the gelcoat. Glass scrims and fabrics can be used to achieve high glass contents, but each should be used with an intervening layer of continuous mat. Sandwich constructions give the best results with flow channels in the foam core (2 mm crosswise) and perforated foam. Core glass is of limited suitability for processing. To reduce the viscosity, the application of 1-2 % of the injection additive 742-0018 is suitable, which reduces the viscosity to 400-600 mPas. Higher dosages should be avoided to maintain fire protection. Addition of styrene or MMA to reduce viscosity should also be avoided.

Fire Retardant properties

The thickness of the laminate and its overall structure - including any top layers, coatings, applications, sandwich inserts, etc. - also have a decisive influence on fire properties. It is necessary to take into account that individual component tests are prescribed for most applications in accordance with the relevant fire protection standards.

Storage and handling

As a result of the wide range of factors which may influence the operating conditions and the application of the product, the user must still carry out their own tests and trials.

The product must be kept closed, cool, dry and protected from sunlight.

Higher temperatures reduce storage life.

In unopened and undamaged original containers, at storage temperatures of up to 20 °C the product can be used for at least 3 months.

Frost must be avoided.

The inspection and assurance of the product quality (goods which meet the specifications) take place within the framework of quality control immediately after the product has been manufactured.

The setting and curing times as well as the viscosities may vary with longer storage periods.

Settling of the fillers can be observed with increasing storage time. Homogenization of the container before use is therefore essential.

The above details have been compiled to the best of our knowledge and are based on our current knowledge and experience. These details only constitute product descriptions. Under no circumstances do they constitute guarantees relating to quality or durability. The processor is obliged to carry out their own tests and investigations in order to take responsibility for any processing and application of our products in the processor's application area. The latest version of the corresponding EU safety data sheet must also be observed.