

BÜFA®-Firestop S 250-V nature

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BÜFA®-Firestop GC S 250 Gelcoats are flame-retardant, halogen-free products that are based on a special elasticised mixture of unsaturated isophthalic acid polyester resins dissolved in styrene and MMA. These products contain less styrene than is otherwise usual in this category. This BÜFA®-Firestop Gelcoat is a product that reliably protects the UP resin behind laminates against flames.

Profile

Product family	BÜFA®-Firestop S 250
Product type	Gelcoat
Processing method	Hand quality
System	FIRESTOP
Pre-accelerated product	Yes
Resin base	Isophthalic acid (IP)
Production method	Batch manufacturing
Colour	transparent
Odour	like styrene

Application Range

BÜFA®-Firestop GC S 250 Gelcoats are suitable for moulded parts for internal and external use that are exposed to normal stress, e.g. furniture, machine parts, roof curbs, etc. For parts exposed to water or extreme weather, BÜFA®-Gelcoat settings based on ISO or ISO/NPG must be used. In such a case, however, it is essential to pay attention to the layer thickness of the gelcoat and increased flame resistance of the laminate resin.

Specification / Technical Data

Density (BM D01) approx.	1,25 g/mL
Flashpoint (BPV FP 02) approx.	32°C
Styrene content approx.	16,00 %
Viscosity (BM V01)	40,000 - 50,000 mPas

Viscosity at 20 °C with spindle 5 and 5 rpm

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	Butanox M-50 2.0 vol.%
Geltime (Reactivity 20-30°C)	10 - 18 min
Curing time (Reactivity 20°C-Tmax)	18 - 25 min
T-Max (Reactivity Tmax at 20°C)	90 - 130 °C

ATTENTION! The above data refer exclusively to the use of the reactants mentioned here in the specified dosage. When using other products and also with deviating dosage, the results may be different.

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.

BÜFA®-Firestop S 250-V nature can be cured with the commercially available ketone peroxides.

In order to achieve the optimum mechanical and fire protection properties, the moulded parts are to be post-cured for at least 6 hours at + 80°C. This achieves the optimal gelcoat properties.

It is important to consider under all circumstances that the viscosity, reactivity and chemical resistance of the coloured gelcoat can be affected by the pigmentation!

Processing

So far, the BÜFA release agent system BF 500 / BF 700 has been tested and used successfully for this gelcoat.

Other release agents should first be tested for their usability under practical conditions.

Optimal results are achieved by following the instructions below: The wet film thickness of the product in liquid state should ideally range between 600 - 800 µm and should not be less than 600 µm when wet.

This gelcoat can only be processed manually as a result of the product composition.

For processing and curing, the instructions in our "Working with BÜFA®-Gelcoats" technical information leaflet must also be observed.

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 the fire behavior. The high level of fire protection may result in lower gloss levels and surface quality. The thickness of the laminate and the overall structure of the component - including any top layers, coatings, applications, sandwich inserts, etc. - also have a decisive influence on the fire behavior. It is important to note that individual component tests are prescribed for most applications and are the responsibility of the manufacturer.

Colouring

The density of the product depends on the pigmentation.

This is a non-pigmented product.

BÜFA®-Firestop Gelcoats can only be pigmented to a limited range due to their fire retardant properties.

Other information

The gelcoat should be stirred gently before processing.

It is essential to take into account that for most applications individual component tests are prescribed and these are the responsibility of the manufacturer.

This BÜFA®-Firestop Gelcoat is halogen-free and does not contain any phosphorous or nitrogen-based additives which could have a detrimental effect on weather resistance.

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 stored closed, in a cool, dry place and protected from sunlight.

In unopened, original containers, the product can be processed for at least 3 months if properly stored at up to 20 °C.

Higher temperatures reduce storage life.

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

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.