BÜFA®-Firestop GC S 285-SV grey BF-70035-E

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BÜFA®-Firestop GC S 285 Gelcoats are flame-retardant, halogen-free products based on an unsaturated isophthalic acid polyester resin dissolved in styrene. With a carefully selected combination of special flame retardant additives, this gelcoat achieves outstanding fire protection properties. This BÜFA® -Firestop Gelcoat is a product that reliably protects the UP resin behind laminates against flames.

Profile

Product family	BÜFA®-Firestop GC S 285
Product type	Gelcoat
Processing method	Spray quality
System	FIRESTOP
Pre-accelerated product	Yes
Resin base	Isophthalic acid (IP)
Production method	Batch manufacturing
Colour	grey
BF-Number	BF-70035-E
Odour	characteristic

Application Range

BÜFA®-Firestop GC S 285 Gelcoats are suitable for moulded parts for internal and external use that are exposed to very high stress, e.g. cladding panels, fire safety, laboratory and ship's doors, railway vehicles, wagon construction, etc. Other objects will require individual clarification in advance. We recommend consulting our Application department to determine a suitable protective coating.

Specification / Technical Data

Density (BM D01) approx.	1,35 g/mL

Flashpoint (BPV FP 02) approx.	13°C
Viscosity (BM V01) **Viscosity at 20 °C with spindle 5 and 5 rpm**	12,000 - 16,000 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	Curox M-303 2.0 vol%
Geltime (Reactivity 20-30°C)	25 - 33 min
Curing time (Reactivity 20°C-Tmax)	50 - 65 min
T-Max (Reactivity Tmax at 20°C)	65 - 100 °C

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.

The use of Curox M-102 or comparable peroxides from other manufacturers is not possible.

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 GC S 285-SV grey BF-70035-E This product can be cured with 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 fire protection properties.

Processing

So far, the BÜFA release agent system Chemlease 2196 W 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.
After approx. 60 minutes, you can laminate with a perfect bond. In order to guarantee a perfect bond, the laminating work must be carried out after no more than 8 hours. If the gelcoat is applied after a waiting time >8 h, the user bears full responsibility and should test this in advance.
This gelcoat can be processed with appropriate application systems from the BÜFA®-Tec range. ATTENTION! Use only dried and de-oiled compressed air!
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.

We generally recommend combining BÜFA®-Firestop Gelcoats with our BÜFA®-Firestop resins in order to make optimum use of the synergies between the matching products.

Orientation for fire testing

• EN 45545 - HL 3 (Gelcoat layer thickness 700 µm wet) with a 4 mm thick fibreglass laminate (resin: BÜFA®-Firestop 8175-W-1) with 30 wt.% glass content.

The laminates have been produced under ideal, controlled laboratory conditions and subjected to indicative testing. This information does not replace component testing by the manufacturer.

Colouring

In order to achieve the good fire protection properties, a high level of fire protection agent is necessary, therefore colour stability is not possible. The gelcoat tends to change colour within a short time, which generally makes painting necessary for visible surfaces.
For an optimal coating of the BÜFA®-Firestop Gelcoat we have made the experience that ideally the gelcoat is sealed with a solvent-based EP-primer. The EP-Primer prevents the direct contact of water on the gelcoat surface.

Other information

The gelcoat should be stirred gently before processing.
In view of the proportion of filler, premature loss of surface sheen may be apparent.
It is essential to take into account that for most applications individual component tests are prescribed and these are the responsibility of the manufacturer.
The finished gelcoated component must not be exposed to direct weathering at any time (max. storage under a roof). The component must be dried again before painting.

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 and undamaged original containers the product can be processed for at least 3 months at storage temperatures between 5 and 20 °C.
Higher temperatures reduce storage life.
Frost must be avoided.
The setting and curing times as well as the viscosities may vary with longer storage periods.
Sedimentation of the fillers can be observed with increasing storage time.