Technical Data Sheet

BÜFA®-Firestop 6815-N-4

Fire Protection Resin Prod. No. 7880816

Product description

BÜFA®-Firestop 6815-N-4 is an unfilled, unsaturated polyester resin dissolved in styrene. The resin is halogenated, moderately reactive and non-thixotropic.

Applications

BÜFA®-Firestop 6815-N-4 is used for the production of flame resistant, translucent sheets and can be processed by machine as well as by hand. BÜFA®-Firestop 6815-N-4 has a very high light transmission value in cured laminates (depending of the glass fibre products used for reinforcement), good weather resistance and is light stabilised. Because of its low viscosity, BÜFA®-Firestop 6815-N-4 has very good impregnation and wetting properties on glass fibres and a fast curing speed for machine applications.

Specifications / technical data

Property	Test method	Value	Unit
Viscosity at 23°C	TM 2013	200 - 220	mPas
Color, Lico 200	TM 2017	3,0 max.	APHA
Non-volatile constituents	TM 2033	64,5 - 67,5	%
Density at 23 °C	TM 2160	1230 - 1250	kg/m³
Appearance	TM 2265	clear	
Stability	TM 2300C	75	min
Refraction index 23 °C	TM 2150	1,530 - 1,533	
Flash point	TM 2800	27,5	°C

Curing

Reactivity:
BÜFA method in accordance with DIN 16 945 6.2.2.1
(100 g resin + 0.5 % BÜFA®-Accelerator Co 1 + 2 % Butanox M-50)

25 - 35 °C	10.0 - 12.0 min
25 °C - Tmax	17 - 23 min
Tmax	135 - 165 °C

Gel time at 25 °C in a 100 g cup with 0.5 % BÜFA®-Accelerator Co 1 + 2 % Butanox M-50: 10.0 - 11.5 min

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Attention!
The information given above refers exclusively to the use of the catalyst named and the quantity specified. The use of different products or differing quantities may yield different results.

Mechanical Properties

Property*	Test method	Value
Flexural strength	ISO 178	128 MPa
Flexural E-modulus	ISO 178	5,900 MPa
Impact resistance, unnotched	ISO 179	57 kJ/m²
Tensile strength	ISO 3268	75 MPa
Tensile E-modulus	ISO 3268	6,400 MPa
Elongation at break	ISO 3268	1.2 %

* Measured in a standard laboratory atmosphere on test specimens made of a laminate with 3 layers of powder bound glass fibre matt 450 g/m² (resin-glass ratio 2.5 :1) that were conditioned for 2 hours at +70 °C + 1 h at 120 °C after curing for 16 hours at room temperature (stored). Curing formulation: 100 g resin + 0.5 % NL 49 P (Akzo) + 2 % Butanox M 50.

Properties of the cured base resin

Property*	Test method	Value
Flexural strength	ISO 178	63 MPa
Flexural E-modulus	ISO 178	1,600 MPa
Impact resistance, unnotched	ISO 179	7.0 kJ/m²
Tensile strength	ISO 527-2	33 MPa
Tensile E-modulus	ISO 527-2	1,900 MPa
Elongation at break	ISO 527-2	1.9 %
Heat distortion temp. (HDT)	ISO 75-A	54 °C

* Measured in a standard laboratory atmosphere on cast test specimens made of pure resin conditioned for 3 hours at + 80 °C after curing for 16 hours at room temperature (stored). Curing formulation: 100 g resin + 0.5 % NL 49 P + 2.0 % Butanox M 50.

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Directions for use	The resin should be conditioned to at least 15 °C before using. Stir the resin before adding the accelerator.
Note:	The thickness of the laminate and its entire construction, including any top coats, varnishes, applications, sandwich components, etc. also have a decisive influence on fire behaviour. Always remember that individual component tests are mandatory for most applications.
Fire protection properties	Result of an orientation test according to BS 476 part 6: (1 mm laminate with 1 layer 450 g/m² powder bound matt): Class 1/0 The laminates were produced under ideal, controlled laboratory conditions. This information does not replace component tests by the manufacturer.
Storage/Handling	This product must be stored cool in closed containers, protected from sunlight. Shelf-life is at least 3 months in unopened, original containers stored up to a temperature of 20 °C. Gel and curing times may change with increasing duration of storage.

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