

## BÜFA®-Firestop 6815-N-3

Fire Retardant Resin

Prod. No. 788-6816

**Product description** BÜFA®-Firestop 6815-N-3 is an unfilled, halogenated, unsaturated polyester resin in styrene. It is a non-thixotropic, medium reactive fire retardant resin.

**Applications** BÜFA®-Firestop 6815-N-3 is designed for fire retardant translucent sheeting manufacture and it is suitable for automated machine or hand lay-up processes. BÜFA®-Firestop 6815-N-3 allows high light transmission in cured laminates, good environmental resistance and it is light stabilised. It has low viscosity for rapid wetting of glass fibre and rapid cure suitable for machine laminating.

Specifications / technical data	Property	Test method	Value	Unit
	Viscosity at 23 °C Physica Spl Z2 rpm 100	TM 2013	182 - 214	mPas
	Colour, Lico 200	TM 2017	3,0 max.	APHA
	Non-volatile constituents	TM 2033	61,5 - 66,5	%
	Density at 23 °C	TM 2160	1,26 - 1,29	kg/m <sup>3</sup>
	Appearance	TM 2265	clear	
	Stability	TM 2300C	75 minimum	min
	Refractive index at 23 °C	TM 2150	1,532 - 1,535	
	Flash point	TM 2800	+ 25,5	°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	9,4 - 12,8 min
25 °C - Tmax	19 - 25 min
Tmax	135 - 165 °C

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**Gel time at 25 °C in a 100 g cup  
with 0,5 % BÜFA®-Accelerator Co 1  
+ 2 % Butanox M 50:** 9,4 - 12,8 min

**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. Reactivity is strongly influenced by product and working temperature.

**Mechanical Properties**

<b>Property*</b>	<b>Test method</b>	<b>Value</b>
<b>Flexural strength</b>	ISO 178	140 MPa
<b>Flexural E-modulus</b>	ISO 178	6 300 MPa
<b>Impact res. - unnotched sp.</b>	ISO 179	35 kJ/m <sup>2</sup>
<b>Tensile strength</b>	ISO 527-2	74 MPa
<b>Tensile-E-modulus</b>	ISO 527-2	7 300 MPa
<b>Elongation at break</b>	ISO 527-2	1,0 %

\* laminates made with three plies of 450 g/m<sup>2</sup> powder bound chopped-strand glass fibre mat, cured with 0,6% of a 1% cobalt solution and 1,5% Butanox M 50. Laminates allowed to cure for 16 hours at 20 °C followed by post-cure of 2 hours at 70°C and a further 1 hour at 120°C.

**Properties of the cured base resin**

<b>Property*</b>	<b>Test method</b>	<b>Value</b>
<b>Flexural Strength</b>	ISO 178	90 MPa
<b>Flexural E-Modulus</b>	ISO 178	2 300 MPa
<b>Impact res. - unnotched sp.</b>	ISO 179	4,5 kJ/m <sup>2</sup>
<b>Tensile strength</b>	ISO 527-2	26 MPa
<b>Tensile E-modulus</b>	ISO 527-2	2 700 MPa

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<b>Elongation at break</b>	ISO 527-2	1,0 %
<b>Heat deflection temperature (HDT)</b>	ISO 75-A	65 °C
<b>Density at 20 °C</b>	ISO 1183	1275 kg/m <sup>3</sup>
<b>Hardness (GYZJ 934.1)</b>	Barcol	32

\* Castings cured using 0,6% of a 1% cobalt solution, 0,5% of Trigonox C and 1,0% Butanox M 50. Castings were allowed to cure for 16 hours at 20 °C followed by post-cure of 2 hours at 70°C and a further 1 hour at 120 °C.

**Directions for use**

Before use the resin should be conditioned at 15 °C minimum. Stir the product before blending.

**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**

Orientalional test results with a 3 mm test laminate: BS 476 Parts 6 and 7, Class 0/1 classification.

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.

**Former product name**

Synolite 6815-N-3

Note: The Information given above is based on our current state of knowledge and experience. In view of the many factors that may Influence working conditions and the application of our products, the user is not relieved from carrying out his own tests and experiments. No legally binding warranty of certain properties or suitability for a particular purpose can be derived from this information. It is the responsibility of the receiver or user of our products to observe proprietary rights as well as existing laws and regulations. The latest version of the corresponding EU Safety Data Sheet must also be observed.



Gelcoat Plus

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A company of BÜFA and DSM Composite Resins