

## **TECHNICAL BULLETIN** **EPOCAST F**

### **Characteristics**

**EPOCAST F** consists of a filled mixture of specially chosen polyoles curing with isocyanates to elastics polyurethane form materials. Due to the low exothermal reaction during the curing process – even of larger quantities – and the low shrinkage stress the chocking compound is excellently suitable for pouring of sensitive pressured devices and elements. **EPOCAST F** is characterized by long application times and smooth surfaces after curing even at increased air humidity.

### **Unit size**

1 unit	<b>EPOCAST F</b>	(Resin and Hardener)	3,7 Ltr.
		Net Weight Resin	4,0 kgs
		Net Weight Hardener	1,0 kgs

### **Colour**

The resin is delivered in blue standard colour. Other covered colours are available for larger purchasing quantities (at least complete 4-5 t /a).

### **Working Procedure**

Before taking the resin out of the can the resin is to be mixed homogeneously with a mixing tool. Avoid formation of bubbles!

Mix the resin and hardener in weight relation 100 : 25 or 4 : 1. The mixing procedure should be repeated after a short time due to a pre-reaction which causes full sociability of the resin and hardener components.

### **Period of Application**

After mixing of resin and hardener immediately starts a reaction which limits the period of application to 60 min. at room temperature. Higher temperatures reduce the period of application.

### **Shelf-life**

The shelf-life of EPOCAST F is 6 months after production

## **Technical Bulletin**

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### **Curing Process**

At room temperature the curing process is finished after approx. 36 hours. Even high air humidity (93%) extremely smooth surfaces can be achieved with this pouring system. Increased temperatures during curing (e.g. 60 °C – 1 hour).

### **Physiological Characteristics**

This product is a processed reaction medium on basis of various polyoles which is principally not injurious to health. Longer contact with the skin may cause in special cases irritation of the skin. Therefore certain protection measures, in general those which are usually applicable for handling of chemicals, should be considered.

Resin compounds (mixture with isocyanates) are to be treated according to special measures for this hardener group.

Enclosures: Technical Data (Laboratory data)

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## Technical Bulletin

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### TECHNICAL DATA (LABORATORY DATA) EPOCAST F

#### System Specifications

Property	Condition	Resin	Hardener	Units
Viscosity DIN 53019	25°C	1050 ± 150	110 ± 30	mPa·s
Density DIN EN ISO 2811-2	20°C	1.40 ± 0.05	1.23 ± 0.05	g/cm <sup>3</sup>
Shelf Life	23°C	6	6	months

#### Typical System Characteristics

Property	Condition	Value	Units
Color resin		dark blue	
Color hardener		brown transparent	
Viscosity IO-10-50 resin	25°C	1200/1200	mPa·s (0,17/1,7 sec <sup>-1</sup> )
Viscosity IO-10-50 hardener	25°C	-/140	mPa·s (0,17/1,7 sec <sup>-1</sup> )
Mix Ratio by weight (resin : hardener)		100:25	Parts by weight
Mix Viscosity DIN 53019	25°C	800	
Process time (15 ml mixture)	23°C	150	min

#### Typical Cured System Characteristic (Post cure before measurement 24h/23°C + 16h/80°C)

Property	Condition	Value	Units
Thermal Conductivity DIN 52613		0,36	W/m·K
Glass transition temperature IEC 61006		-10	°C
Thermal index IEC 216 flexural strength % weight loss		-	°C
Specific Gravity DIN 16945	20°C	1.36 ± 0.05	g/cm <sup>3</sup>
Hardness ISO 868		70 ± 10	Shore A
Tensile Strength DIN 53455/457		2,5	MPa
Bending Strength - MPa			
Volume resistivity IEC 60455 Part 2	23°C	2 x 10 <sup>13</sup>	Ω·cm
Dielectric Constant $\epsilon_r$ IEC 60250	23°C / 50 Hz		
	23°C / 1K Hz	4,2	
	23°C 50% rh	22	kV/mm
Dielectric Strength IEC 60250	50Hz, 23°C, 50% rh		
Dissipation factor tan-δ IEC 60250	1 KHz 23°C, 50% rh		
	1MHz,23°C, 50% rh		
	50Hz, 23°C, 50% rh		
Dissipation factor tan-δ IEC 60250	1 KHz 23°C, 50% rh		
	50Hz, 23°C, 50% rh		
	1MHz,23°C, 50% rh		
Tracking resistance IEC 60112		600	CTI
Water absorption ISO 62	24h RT	0.36	%

All data and statements made herein are based upon laboratory tests and field experiences, but made without any representation or guaranty of accuracy.

Our products are sold on the conditions that the user himself will evaluate them to determine their suitability for his own purpose before adoption.

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