

# resin

**Damival® 13552ND50 / 13500 00 00**

- ▶ **Self extinguishing**
- ▶ **UL94 V0 approved (E 108253)**
- ▶ **Halogen free**
- ▶ **Semi rigid**
- ▶ **Good thermal conductivity**
- ▶ **Black colour**

## **General description**

Two parts polyurethane casting resin.

## **Application**

Casting resin for encapsulation of transformers, printed circuit board assemblies, inductive components ...

## **Processing**

The resin must be stirred before use, as it contains fillers which can settle during storage. A storage above 25°C will increase the settling. Avoid air introduction during stirring.

Polyurethane resin and hardener are sensitive to moisture during the processing steps (storage, mixing, casting). The parts to be casted should be dry and clean.

A preheating of the parts and/or of the resin and hardener can improve the encapsulation. A vacuum processing enhance the dielectrical and mechanical properties.

Mixing can be done by machine or manually.

The gel time and the curing time depend on the mixed volume, the temperature and the thickness of the layer.

Final properties are depending on the curing level.

Mixing ratio (resin/hardener):

Weight: 100 / 16

Volume: 100 / 20

## **Storage Conditions**

Resin : 12 months in original packaging, at 15 to 25°C, protected from moisture.

Hardener: 12 months in original packaging, at 15 to 25°C, protected from moisture.

## **Packaging**

Resin : 25 kg, 250 kg metallic drums,

Hardener : 5 kg, 25 kg, 250 kg metallic drums,

Other packaging upon request

## **Health and safety**

Avoid any contact with skin and eyes,

Work in a well ventilated area, far from any flame,

Wear safety gloves and goggles.

Read the Material Safety Data Sheet for complete information.

The product properties set forth in this data sheet are based on the results of testing of typical material produced by the affiliated companies of Von Roll Holding Ltd. (underneath referred as Von Roll). Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to considerations which may be relevant in the independent determination of the use and/or manner of use of product. Von Roll does not claim or warrant that the use of its product will have the results described in this data sheet or that the information provided is complete,

		Value (Resin)	Value (Hardener)	Value (After mixing)	Value (After curing)	Test norm
<b>Physical properties</b>						
Colour		Black	Brown	Black		
Density at 25°C		1.54	1.21	1.50		
Viscosity at 25°C	mPa.s	9000 ± 3000	90 ± 20	4500		
Gel time at 20°C (1 000 g)	mn			70 ± 15		TECAM
Hardness Shore D					50	ISO 868
Coefficient of linear expansion	10E-6 / K				50 (- 30 / + 70°C)	
Water absorption (24 h at 25°C)	%				0.5	ISO 62
Self extinguishing					V0 (12mm)	UL 94
Oxygen index	%				28.6	
<b>Mechanical properties</b>						
Tensile strength	MPa				6	ISO 527
Elongation	%				85	ISO 527
<b>Electrical properties</b>						
Dielectric strength (50% R.H./ 23°C)	kV/mm				20	
Dielectric constant (50Hz/20°C)					4.2	
Dissipation factor (50 Hz/20°C)					0.01	
<b>Thermal properties</b>						
Range of use					-40°C / +130°C	
Glass transition temperature	°C				10	
Thermal conductivity	W/m.K				0.57	

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