

**RoHS  
Compliant**

## Description

The product from multicomp-Pro is a very high performance “self-healing” polyurethane resin system. It has been designed for delicate electrical and electronic components and modules, transducers, connectors and seals, automotive, telecommunications and defence industries.

It has low moisture absorption, high water resistance, low viscosity and long usable life.

Properties	Result	Unit
Water absorption (24 hours @ 23°C)	0.06	%
Water absorption (168 hours @ 23.C)	0.21	%
Flame retardant	No	
Hardness	Soft Gel	
Thermal conductivity	0.25	W/m. K
Co-efficient of thermal expansion	150 - 200	ppm/°C
Operating temperature range	-60 to +100	°C (application & geometry dependent)
Volume Resistivity	1.4 <sup>14</sup>	ohm.cm
Surface Resistivity	16 <sup>10</sup>	ohm.cm
Electric strength	20	kV/mm
Dielectric constant	3.9	100 Hz
Dielectric constant	3.7	1 kHz
Dielectric constant	3.6	10 kHz

Physical Data (approx. – values)	Resin	Hardener	Mixed
Colour	Translucent	Yellow	Translucent
Specific Gravity	0.96	0.93	0.95
Viscosity (mPas) @ 25°C	10	6	8

Mix ratio by weight 2.00:1

Mix ratio by volume 2.10:1

## Cure Schedule (150g)

Temperature	Working Life	Gel Time	Light Handling	Full Cure
	(minutes)	(minutes)	(hours)	(hours)
*RT	30-60	2 – 4	24	72
60°C		-	12	24
80°C		-	3	6

\*RT is defined as 20-25°C

The above are typical values and will vary depending on the cured mass and application. Hotter temperatures may be used for faster cure but will result in higher post cure shrinkage and higher cure exotherm. Experimentation and testing are suggested to avoid side effects. For maximum properties a post cure may be required – Contact our technical service department for advice.

## Approvals

UL94 V-0	No
REACH (SVHC concentration)	Refer to SDS

## Mixing Instructions

Twinpacks are pre-weighed resin and hardener components contained in a tough flexible film, separated by a removable clip and rail.

Once the clip and rail are removed the resin and hardener is thoroughly mixed within the bag and is immediately ready for use. Mixing will normally take ~ 2 minutes due to the viscosity; but pay special attention to the corners.

Twinpacks are ideal for small to medium production runs, prototyping and on-site or field use.

## Cleaning

All equipment contaminated with material should be cleaned before the material has hardened.

Use a suitable non-flammable, solvent cleaning agent.

## Storage and Shelf Life

12 months @ 25°C

Bulk containers should be inverted every two to three weeks to reduce the accumulation of the fillers on the bottom of the containers.

Isocyanates are sensitive to moisture and should be kept in their original container or in a volume tank under dry nitrogen blanketing.

Many isocyanates are prone to dimerization, the formation of a white precipitate. Products with minor amounts of this precipitate normally cure to full properties.

Storage at 20 ±5°C (60°F to 86°F) is recommended to ensure full shelf life.

## Health and Safety

MP000429 Health and Safety data or our Technical Service Department for individual/specific advice.

## Part Number Table

Description	Part Number
Polyurethane Composite, Translucent, Twinpack 250g	MP000429

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