

**RoHS  
Compliant**

## Description

The product from multicomp-Pro is a two-part low cost, general-purpose polyurethane encapsulation system. It has been designed for PCBs, transformers, sensors, low to medium voltage cable joints.

It has low exotherm, high impact strength, good electrical insulation characteristics and is RoHS & WEEE Compliant.

Properties	Result	Unit
Hardness	85	Shore A
Flame Retardant	No	
Peak Exotherm (50g mass)	30	°C
Volume Resistivity	1.2 x 1212	ohm-cm
Dielectric Strength	18	kV/mm
Heat deflection	Flexible	
Water absorption (24hr @ 25°C)	0.05	%
Operating Temperature	- 40 to + 125	°C (application & geometry dependent)
Thermal Conductivity	0.214	W/m.k
Tensile Strength	3.4	MPa
Elongation at Break	39	%
Loss Tangent	0.04	50Hz
Permittivity	3.4	@ 50Hz
Shrinkage	1.5	%
Coefficient of Linear Expansion	50 - 75	ppm/°C
Comparative tracking index	>600	V
Tg	8	°C

Physical Data (approx. – values)	Resin	Hardener	Mixed
Colour	Black	Brown	Black
Specific Gravity	1.32	1.24	1.30
Viscosity (mPas) @ 25°C	3000-5000	200-300	1500-3000

Mix ratio by weight 4.0:1

Mix ratio by volume 3.8:1

## Cure Schedule (150g)

Temperature	Working Life	Gel Time	Light Handling	Full Cure
	(minutes)	(minutes)	(hours)	(hours)
*RT	15	60	24	168
60°C	-	-	4	48
80°C	-	-	2	24

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

## Health and Safety

MP000423 health and safety data or our technical service department for individual/specific advice.

## Part Number Table

Description	Part Number
Polyurethane Composite, Black, Twinpack, 250g	MP000423

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