

**EMERGENCY PHONE 1-800-255-3924**  
**TECHNICAL DATA SHEETS**  
**MP 54270BK**

**Description:**

**MP 54270BK** is a two part unfilled electronic grade epoxy encapsulant designed for small to medium sized castings. It cures quickly at room temperature to a tough, semi-rigid polymer. It has good wetting and adhesion to most surfaces and is free flowing to penetrate voids and give good air release. It has very good resistance to water, acids and bases and most organic solvents.

It was especially formulated to a 1A:1B volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. **MP 54270BK** will reach full cure at room temperature within 24 hours. Cure time can be accelerated by the application of heat after product has gelled. Times and temperatures from 1 hour at 65°C to 10 minutes at 100°C are typical for small castings (less than 50 grams).

**Instructions:**

- 1) Bring to room temperature before use.
- 2) Weight and mix parts A and B accurately and thoroughly, scraping sides of container often.
- 3) Allow to cure undisturbed.

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). In extreme cases it may appear solid and cured. Fluctuating temperatures (within 0 to 50°C) aggravate this phenomena. Heating to 50 to 60°C with stirring can usually restore products. Storage at 25 +/- 5°C is optimum for most products.

**Shelf Life:** 12 Months

**Handling and Physical Properties:**

All properties given are at 25C unless otherwise noted.

Color	Black	
Viscosity	Part A	12,000 cps
	Part B	8,000 cps
	Mixed	10,000 cps
Specific Gravity	Part A	1.16
	Part B	0.97
	Mixed	1.10
Pot Life	20 – 30 minutes	
Mass	50 grams	
Hardness Shore - D	80	
Tensile Elongation	4% *	
Tensile Strength	7500 psi *	
Dielectric Constant (25C, 100Hz)	3.5 *	
Dielectric Strength	410 v/mil	
Volume Resistivity	8.3 x 10 <sup>14</sup> ohm-cm	
Temperature Range**	-40 to 150°C	

**MIX RATIO:**

Mix Ratio (Part A to B):	
by weight	100 to 85
by volume	1 to 1

**CURE SCHEDULE:** 24 – 72 hours at 25°C  
or 1 hours @ 65°C

**Engineering Excellence**

For technical information  
and support call **1-800-552-0299** or visit our website at

**[www.instantca.com](http://www.instantca.com)**