

Technical Data Sheet

DR1

Two Part Polyurethane System for Badge Doming 50 – 60 Shore D Hardness

Semi-Flexible two part polyurethane system for badge doming or encapsulation in thin sections.

Special Features

Low viscosity
Easy to mix
Self degassing
Excellent doming properties
Optically clear
UV stable

Mix Ratio

	Part A: Part B
By Weight	100 : 100
By Volume	100 : 100

Product Data

Property	Units	Part A	Part B	Mix
Material	-	Formulated polyol	Formulated isocyanate	Polyurethane
Appearance	-	Clear liquid	Clear liquid	Clear liquid
Viscosity (25°C)	mPa.s	300 – 500	40 – 70	80 – 180
Density (25°C)	g/cm ³	1.02 – 1.07	1.02 – 1.07	1.02 – 1.07
Pot Life (200g, 25°C)	Minutes	-	-	8 – 12
Tack Free Time (200g, 25°C)	Minutes	-	-	50 – 60
Tack Free Time (1 – 2mm dome, 45°C)	Minutes	-	-	60 – 90
Full Cure Time (45°C)	Hours	-	-	6 – 8

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Cured Properties

Properties	Standard	Units	Result (Full Cure)
Hardness	BS 2782: Part 3: Method 365B	Shore D	50 – 60
Tensile Strength	BS 2782: Part 3: Method 320A	MPa	7.50 – 9.50
Elongation at break	BS 2782: Part 3: Method 320A	%	105 – 125
Adhesion Metals Plastic Stone	ABL STM	-	Good Good Good

Method of Use

DR1 should be used at 20–25°C.

To homogenize the liquids, shake both components immediately prior to use. For good adhesion to substrate, ensure that all surfaces are free of moisture, oil, dust and dirt. Part A should be mixed with Part B according to the indicated mixing ratio. Both components should be thoroughly mixed, care should be taken to avoid air entrapment and make certain that material at bottom and sides of container is thoroughly stirred into centre. Using a suitable dispensing mechanism pour on to the surface of the badge or surface to be domed.

DR1 can be machine mixed and dispensed. Cure the mixed resin at 40 - 45°C. Do not move or create vibration while the resin is curing.

Storage

Part A and B should be stored in original, unopened containers between 20 and 25°C. Part B may crystallise partially or completely if not stored at above 20°C. Like all polyurethanes, both components are moisture sensitive. Moisture absorption will cause excessive aeration in cast parts. KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE.

If stored under the above conditions, Part A and B will have a shelf life of 6 months from the date of production.

Packaging

Part A is supplied in 1kg containers.
Part B is supplied in 1kg containers.