FUSIONMOLD® NUXPA6

1. Description

DPI 2180 Used by casting ni silicone molds for the production close ot those of PA ot making sample or prototype pieces.

DPI 2180 has ultra-high heat resistance, corrosion resistance, acid and alkali resistance, high wear resistance of fast curing polyurethane resin.

2. Basic properties

Item		Value	Remarks
Commodity		DPI 2180	
Apperance	A Comp.	Off-white / Black	Polyol
	B Comp.	Transparent light yellow	Isocyanate
Color of article		Off-white / Black	
Viscosity (mPa.s,25°C)	A Comp.	850	
	B Comp.	170	Brookfield-LVT
	Mixing	520	
Density of parts before mixing at 25°C	A Comp.	1.16	
	B Comp.	1.19	Special gravity cup
Density of cured mixing at 23°C		1.27	Standard hydrometer
Mixing ratio	A:B	100:100	Parts by weight
Pot life	(25°C)	5 min	Resin 100 g
Time before demolding	70°C	60 min	
Curing conditions	23°C	60 min	@70°C+30-60 min@125°C
Hardness	Shord D	87	JIS-K7215 25°C

Item		Value	Remarks
Tensile strenght	MPa	60	ISO 527:1993
Elongation	%	12	JIS K-7113
Bending strenght	MPa	92	ISO 527:2001
Flexural modulus of elasticity	MPa	1950	ISO 527:2001
Charpy impact resistance	KJ/m2	17	TISO 179/2D:1994
Glass transition temperature /Tg)	ºC	135	T.M.A Metter
Linear shrinkage	%	0.2	Mm/m

Note: The above recorded data are representative values, not guaranteed values.

3. Vaccum Casting Process

1. Pre-degassing

Remix POLYOL before each weighing. Degas each part before use.

2. Temperature of resin

If in the low temperature storage, the work will be A and B two liquid heating to 30ºC.

3. Mold temperature

Pre-heated the silicone mold at 60°C- 70°C to accelerate the process.

4. Casting

Mix until a homogeneous and transparent, degas under vacuum for 15 minutes, cast in a mold pre-heated at 50°C- 60°C.

5. Curing condition

Alow to cure 60 minutes at 70°C before demolding. Second cure at 125 °C for 30-60 minutes to achieve optimum heat resistance.

4. Precautions in handling

1. As both A and B components are sensitive to water, don't allow water get into material or don't allow moisture in the air come into prolonged contact with the material. Close container tight after use.
2. Penetration of water into A component may lead to generation of much air bubbles in the cured product. If this should happened, we recommend to heat A component to 60°C-70°C and degas it under vacuum for about 30 minutes.
3. B component in part or in whole may freeze when it is stored for longer period of time at temperatures below 5°C. Frozen material can be used after melting. Warm up container to 60~70°C for 1~2 hours and use the material after stirring it well.
4. When B component is stored in a frozen state, it deteriorates more quickly on age than a liquid material. We recommend to melt it completely and store at 20~25°C.

5. Precautions in safety and hygiene

1. Ensure good ventilation

2. Wear gloves. Take care that hands or skin are not coming in direct contact with raw materials. In case of contact, wash with soap and water immediately. It may irritate hands or skin if they are left in contact with raw materials for longer period of time.

3. Wear safety glasses. If raw materials get into eyes, rinse with flowing water for 15 minutes and call a doctor.

4. Install duct for vacuum pump to ensure that air is exhausted ot the outside of the work shop.

6. Storage conditions

Shelf life is 12 months in a dry place and in the original unopened containers at a temperature between 15 and 25°. Any opened container must be tightly closed under a dry gas blanket.

7. Delivery for

A Component: 1kg tin can.

B Component: 1kg tin can.