

# DPI 6160

## 1. Description

DPI 6160 is used in silicone rubber molds to make high temperature resistant prototypes.

DPI 6160 is a good temperature resistance, easy coloring and simple operation.

## 2. Basic Properties

Item		Value	Remarks
commodity		DPI6160	
Appearance	A Comp.	Light yellow	POLYOL
	B Comp.	transparent	ISOCYANATE
Color of Article		Clear, pale yellow	
Viscosity (mPa.s,25°C)	A Comp.	300-400	
	B Comp.	200-300	BROOKFIELD-LVT
	mixing	300	
Density of parts before mixing at 25°C	A Comp.	1.01	
	B Comp.	1.20	Specific Gravity Cup
Density of cured mixing at 23°C		1.20	Standard Hydrometer
Mixing Ratio	A:B	100:200	Parts by weight
Pot Life	(25°C)	6-8 Min	Resin 200g
Time before demolding	70°C	60 Min	
Complete hardening time	23°C	4 days	
Hardness	Shord D	80	
Tensile strength	MPa	60-70	ISO 527:1993
Elongation	MPa	100-120	ISO 527:2001
Flexural modulus of elasticity	MPa	2100	ISO 527:2001
Charpy impact resistance	KJ/ m <sup>2</sup>	35	ISO 179/2D:1994
Glass Transition Temperature (Tg)	°C	210	T.M.A Metter
Linear shrinkage	%	1	Mm/m
Maximal casting thickness	mm	5	

### 3. Vacuum Casting Process

1). Pre-degassing

Weigh according to the indicated ratio. Mix until a homogeneous mixing is obtained.

The A and B two liquid vacuum deaeration treatment in vacuum box.

2). Temperature of resin

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

3). Mold temperature

The silica gel mold can also be preheated to a minimum of 50-60 °C to speed up the reaction.

4). Casting

Mix until a homogeneous. Degas under vacuum for 5-10 minutes, mix for one minute, after degas 1-2 minutes, cast in a mold pre-heated at 50-60°C minimum.

5). Curing condition

Allow to cure 60 minutes at 70°C. In room temperature cooling after demolding. It is necessary for the post curing process to achieve the best performance.

6). Post curing process

1 hours at at 70°C, 1.5 hours at 100°C, 2 hours at 120°C, 2 hours at 160°C.

### 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 glove. 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 to 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: 1 kg tin can.