FUSIONMOLD® ABSI02

1. Description

DPI 8150 is an ABS grade urethane resin used for vaccum casting application.
DPI 8150 is well-balanced physical properties, excellent cure properties ans superior dimensional stability of DPI 8150 make it possible to use urethane resin for the manufacture of prototypes ans for the monitoring of strength of general injection molded parts as a new cast material witg sufficiently high practical strenght.

DPI 8150 is also suited for use in the parts wich are produced in small lot.

2. Basic properties

Item		Value	Remarks
Commodity		DPI 8150	
Apperance	A Comp.	Beige / Black / Not colored	Polyol
	B Comp.	Clear / Pale / Yellow	Isocyanate
Color of article		Beige / Black / Milky white	
Viscosity (mPa.s,25°C)	A Comp.	700	
	B Comp.	175	Brookfield-LVT
	Mixing	300	
Density of parts before mixing at 25°C	A Comp.	1.06	
	B Comp.	1.17	Special gravity cup
Density of cured mixing at 23°C		1.12	Standard hydrometer
Mixing ratio	A:B	100:200	Parts by weight
Pot life	(25°C)	5-6 min	Resin 200 g
Time before demolding	70°C	60 min	
Hardness	Shord D	82	

Item		Value	Remarks
Tensile strenght	MPa	86	ISO 527:1993
Elongation	MPa	100	ISO 527:2001
Flexural modulus of elasticity	MPa	2100	ISO 527:2001
Charpy impact resistance	KJ/m2	100	ISO 179/2D:1994
Glass transition temperature (Tg)	ºC	80	T.M.A Metter
Linear shrinkage	%	0.3	Mm/m
Maximal casting tickness	mm	4	

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 20ºC.

3. Mold temperature

Pre-heated the silicone mold at 35°C- 40°C to accelerate the process.

4. Casting

Mix until a homogeneous and transparent, degas under vacuum for 5 minutes, cast in a mold pre-heated at 35°C- 40°C.

5. Curing condition

Alow to cure 60 minutes at 70°C before demolding.

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 ni 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 Acomponent 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't 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 6 months in a dry place and in the original unopened containers at a temperature between 15 and 25°C. 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.