

# AVALON® 85 ABX

Thermoplastic Polyurethane Elastomer (Polyester)

Huntsman Corporation

## Message:

AVALON 85 ABX is a high performance polyester based thermoplastic polyurethane for injection moulding.

AVALON 85 ABX is part of the AVALON Perform Range and offers a specially designed, flexible material with improved slip resistance and rubber-like properties, particularly suitable for thin outsoles.

The features offered include:

- Improved processing
- Lower density
- Excellent surface definition
- Abrasion resistance
- Flex resistance
- Phthalate free TPU

General Information			
Features	Good flexibility		
	Good wear resistance		
	Excellent appearance		
Uses	Footwear		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.15	g/cm³	DIN 53479
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			DIN 53505
Shaw A	86		DIN 53505
Shaw D	35		DIN 53505
Mechanical	Nominal Value	Unit	Test Method
Abrasion Resistance		mm³	DIN 53516
Bending life	> 1.0E+5	Cycles	DIN 53522
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (Break)	> 25.0	MPa	DIN 53504
Tensile Elongation (Break)	> 600	%	DIN 53504
Tear Strength <sup>1</sup>	> 40	kN/m	DIN 53507
Additional Information			
Test plates conditioned 20 hours at 100°C before testing			
Injection	Nominal Value	Unit	
Drying Temperature - Desiccant Dryer	80.0 - 90.0	°C	
Drying Time - Desiccant Dryer	2.0	hr	
Hopper Temperature	25.0 - 35.0	°C	
Rear Temperature	175 - 195	°C	

Middle Temperature	180 - 200	°C
Front Temperature	180 - 205	°C
Nozzle Temperature	175 - 200	°C
Mold Temperature	25.0 - 50.0	°C
Injection Pressure	2.00 - 10.0	MPa
Injection Rate	Slow	
Holding Pressure	1.00 - 5.00	MPa
Back Pressure	0.0300 - 0.300	MPa
Screw Speed	20 - 80	rpm
Screw L/D Ratio	20.0:1.0 to 25.0:1.0	
Screw Compression Ratio	2.0 : 1.0 - 3.0 : 1.0	

#### Injection instructions

Typical Screw Diameter : 40 - 120 mm3 Stage Design

Feed Zone : 0.4L

Compression Zone : 0.3L

Metering Zone : 0.3L

#### NOTE

1. Method B, right-angle specimen  
(without cut)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

