

**Product Data Sheet****AVALON® 90 ABR**

Polyester-based Thermoplastic Polyurethane

PRODUCT DESCRIPTION

AVALON® 90 ABR is a polyester-based Thermoplastic Polyurethane (TPU) for injection moulding and part of the AVALON Perform Range. Key features are phthalate-free, abrasion resistance, cut and scratch resistance, good low temperature performance and short cycle times.

APPLICATIONS

Premium quality sports plates and sports footwear.

TYPICAL PHYSICAL PROPERTIES

Properties	Key	NORM	Value	Unit
Hardness (after 3 sec.)	M	ISO 7619	89	Shore A
Hardness (after 3 sec.)	M	ISO 7619	44	Shore D
Density	M	ISO 1183-1	1,21	g/cm ³
Tensile strength	M	DIN 53504	50	MPa
Elongation @ break	M	DIN 53504	500	%
Tensile stress @ 100% elongation	M	DIN 53504	8,9	MPa
Tensile stress @ 300% elongation	M	DIN 53504	19,0	MPa
Tear strength	M	ISO 34-1	80	N/mm
Flexural modulus @ 23°C	M	ISO 178	42	MPa
Abrasion	M	ISO 4649	20	mm ³
Compression set at 70h @ 23°C	M	ISO 815	25	%

M = Injection molded parts to meet DIN & ASTM requirements. Parts tempered for 20 hrs @ 100 °C prior to testing



HEALTH & SAFETY ADVICE

Before undertaking any trials with this product it is essential that all personnel are aware of the necessary precautions that must be taken. These are detailed in the relevant Material Safety Data Sheet (MSDS), which will be provided by Huntsman.

SUPPLY & STORAGE

AVALON® 90 ABR is supplied in bags, drums or octabins. Please contact your customer service to confirm this.

AVALON® 90 ABR has a minimum expected shelf life of 12 months after shipment date. The product should be stored in a dry and cool place in the manufacturer's original packaging.

MATERIAL PREPARATION

AVALON® 90 ABR is supplied pre-dried, however to ensure trouble-free processing it is preferable to dry before use.

The recommended drying conditions are:

- 3 hours at 100-110°C in circulating air
- 3 hours at 80-90°C in dehumidified air
- Dew point: -30°C

PHYSICAL FORM

Type: Transparent pellets

For further information, please contact your nearest sales office: http://www.huntsman.com/PU_customer_service

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