

**Product Data Sheet****IROGRAN® A 70 E 6023**

Polyester-based Thermoplastic Polyurethane

PRODUCT DESCRIPTION

IROGRAN® A 70 E 6023 is a polyester-based Thermoplastic Polyurethane (TPU) for injection molding applications. Key features are phthalate-free, abrasion resistance, good low temperature performance and durability.

APPLICATIONS

Thick wall technical parts and thin wall technical parts.

TYPICAL PHYSICAL PROPERTIES

Properties	Key	NORM	Value	Unit
Hardness (after 3 sec.)	M	ISO 7619	67	Shore A
Density	M	ISO 1183-1	1.18	g/cm ³
Tensile strength	M	DIN 53504	30	MPa
Elongation @ break	M	DIN 53504	800	%
Tensile stress @ 100% elongation	M	DIN 53504	2.5	MPa
Tensile stress @ 300% elongation	M	DIN 53504	5.0	MPa
Tear strength	M	ISO 34-1	50	N/mm
Abrasion	M	ISO 4649	50	mm ³
Softening range low	E	Huntsman TMA	130	°C
Softening range high	E	Huntsman TMA	160	°C

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

E = Extruded film cut to ASTM requirements. Parts at room temperature aged 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

IROGRAN® A 70 E 6023 is supplied in bags, drums or octabins. Please contact your customer service to confirm this.

IROGRAN® A 70 E 6023 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

IROGRAN® A 70 E 6023 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 80-90°C in circulating air
- 3 hours at 70-80°C in dehumidified air
- Dew point: -30°C

PHYSICAL FORM

Type: Transparent pellets

PROCESSING PARAMETERS

Melt Volume Rate 170°C / 8,7kg ISO 1133-1 = 30 cm³/10min

Processing Parameter: Injection Molding

Temperature Profile °C

Feed Zone: 25 - 40

Barrel: 165 - 175

Nozzle: 170 - 190

Mold: 20 - 50

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

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