

**Product Data Sheet****IROGRAN® A 92 C 4959**

Polyester-based Thermoplastic Polyurethane

PRODUCT DESCRIPTION

IROGRAN® A 92 C 4959 is a polyester-based Thermoplastic Polyurethane (TPU) for extrusion applications. Key features are excellent wear performance, good low temperature performance and high elasticity.

APPLICATIONS

Thin wall extrusion profiles and spiral hoses.

TYPICAL PHYSICAL PROPERTIES

Properties	Key	NORM	Value	Unit
Hardness (after 3 sec.)	M	ASTM D 2240	91	Shore A
Hardness (after 3 sec.)	M	ASTM D 2240	40	Shore D
Density	M	ASTM D 792	1.23	g/cm ³
Tensile strength	M	ASTM D 412	5330	psi
Elongation @ break	M	ASTM D 412	730	%
Tensile stress @ 100% elongation	M	ASTM D 412	1210	psi
Tensile stress @ 300% elongation	M	ASTM D 412	1970	psi
Tear strength	M	ASTM D 624	670	pli
Abrasion	M	ISO 4649	25	mm ³
Bayshore rebound resilience	M	ASTM D 2632	29	%
Compression set at 70h @ 23°C	M	ASTM D 395	20	%
Compression set at 22h @ 70°C	M	ASTM D 395	40	%
Mold shrinkage	M	ASTM D 955	0.7	%
Softening range low	E	Huntsman TMA	165	°C
Softening range high	E	Huntsman TMA	180	°C

M = Injection moulded 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 92 C 4959 is supplied in bags, drums or octabins. Please contact your customer service to confirm this.

IROGRAN® A 92 C 4959 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 92 C 4959 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

PROCESSING PARAMETERS

Melt Volume Rate 205°C / 8,7kg ASTM 1238 = 60 cm³/10min

Processing Parameter:	Extrusion
Temperature Profile	°C
Feed Zone:	25 - 40
Barrel:	195 - 210
Die Head:	195 - 210
Nozzle:	195 - 210

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

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