

**HUNTSMAN**

Enriching lives through innovation

IROGRAN®

**Thermoplastic Polyurethanes**

For the wire and cable industry –  
Creating connections



# IROGRAN® creating connections

We live in a connected world where wires and cables deliver a continuous flow of information and power. Homes, offices, transportation networks and industry depend on these vital links – 24 hours a day, seven days a week.

From household wiring that runs low amp domestic appliances to heavy duty cables that form cross continental communication links, failure is not an option – so casing materials must be robust and reliable.

Huntsman is a leading developer of thermoplastic polyurethane (TPU). Through its comprehensive portfolio of IROGRAN® polyester and polyether engineering materials, Huntsman can devise a solution for every imaginable wire and cable application.

**Flexible and light yet strong and durable, IROGRAN® TPU offers expansive possibilities for creating connections that will perform in the most challenging conditions, from extruded jacketing and protection systems to injection molded components, parts and accessories.**

## Typical applications

IROGRAN® TPU can be used to create cable jackets, grommets, plugs, clips, connectors and anti-kink sleeves for:

- Consumer electronic devices
- Conventional and renewable energy power generation
- General electrical wiring
- Geophysical and submersible cables for underground, underwater and off-shore projects
- Industrial, robotic and automated systems
- Portable power and extension cables
- Telecommunication cables
- Transmission, braking and anti-skid systems in planes, trains and automobiles





## Features and characteristics

Using IROGRAN® TPU gives wire and cable manufacturers infinite scope for overcoming design and performance challenges. With an array of grades, that can withstand different forms of chemical, thermal and mechanical attrition, IROGRAN® TPU materials offer excellent physical properties including:

- High flexibility and elasticity over a wide temperature range
- Good tensile, abrasion, cut, tear, vibration and impact resistance
- Compatibility with conventional processing equipment
- Consistent dimensional stability and quality
- Good stress-crack, anti-ageing and anti-kink properties
- Resistance to weathering and microbial attack
- Imperviousness to water and high humidity levels
- Good melt flow and processability, enabling higher production speeds
- Resistance to oil

**In addition, the majority of IROGRAN® TPU materials can be easily colored, are unaffected by UV radiation, are halogen-free and fulfill requirements of UL / VDE norms. Importantly they are also fully recyclable.**

## Benefits

Creating casing materials from IROGRAN® TPU offers wire and cable manufacturers far reaching commercial advantages and cost efficiencies including:

- Lower upfront equipment investment
- Shorter cycle times and better manufacturing rates
- Excellent adhesion and superior haul off properties
- Improved downstream processing
- Minimized wastage

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Huntsman Polyurethanes is committed to working closely with its customers and can offer a fast and flexible response to your needs. We offer direct links to our laboratories with full technical backup. Commercial support and dedicated customer service is available throughout Europe, the Middle East, Asia-Pacific and the Americas.

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### About Huntsman

Huntsman is a global manufacturer and marketer of differentiated chemicals. Our operating companies manufacture products for a variety of global industries, including chemicals, plastics, automotive, aviation, textiles, footwear, paints and coatings, construction, technology, agriculture, health care, detergent, personal care, furniture, appliances and packaging. Originally known for pioneering innovations in packaging and, later, for rapid and integrated growth in petrochemicals, Huntsman approximately 12,000 employees and operates from multiple locations worldwide. The Company had 2010 revenues of approximately \$9 billion. For more information about Huntsman, please visit the Company's website at [www.huntsman.com](http://www.huntsman.com).

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