Elastomers
Thermoplastic Polyurethanes for the Cable Industry
Under the trademark IROGRAN®, HUNTSMAN offers an extensive range of Thermoplastic Polyurethanes for extrusion applications. The properties of the special grades for the cable industry surpass the quality of many traditional materials. IROGRAN® is used in applications where the mechanical properties are extremely challenged. Cable jacketing made from IROGRAN® can be used for portable power cables and trip lines like trailing cables, supply pipes and extensions, cables for antiskid systems, extensions for mowing machines, helix cables, etc. All our raw materials, including the flame protected ones are halogen-free.

Applications

All IROGRAN®-types of the P-series have been especially developed for the needs of the cable industry and offer a lot of different applications for the manufacturing of:

- Coatings for cables
- Cables sub structure
- Cable protecting systems
- Jackets for high pressure hoses
- Coiled tubing
- Profiles

TUP compared to other materials

Special solutions for the following industries: automation / robotics / automotive

- High flexibility/elasticity
- Excellent abrasion resistance
- Very good cut resistance
- High bending stability
- Halogen-free

Properties / Value

The TPU of Huntsman are characterised by high quality, flexibility and many further performance features and offer individual problem solutions and scopes for design in numerous areas of extrusion. Performance and benefits offer a maximum of cost-efficiency. In detail this means for you:

- High melt stability
  increased production speed with dimensional accuracy
- High production speed
  increased production rate and improved individual competitive advantage
- Consistent dimensional stability and consistency
  minimized waste and complaint rate.
- Wide processing windows
  minimized starting- and standstill losses and enhanced cost efficiency
- Fast start up of production
  easy, comparable handling as of standard products (e.g. PVC)
- Low friction, matt surfaces
  simplified material handling and further processing ability
- Excellent Hydrolysis characteristics and resistance against microbial attack
  long durability also under most difficult conditions of use.
Drying

IROGRAN® grades for the cable industry are supplied in steam-tight bags or in octabins with PE-lining. It is recommended to process the material at room temperature. As IROGRAN® is hygroscopic pre-drying is also recommended. When processed on extruders the granulate should always be pre-dried as even the smallest content of humidity can lead to uneven surfaces and stuck material inside the nozzle. The pre-drying should be carried out carefully and further absorption of humidity should be prevented. The use of humid granulate results in processing problems and poor quality assembly units.

Supply

Standard sales units are 25 kg bags, 1125 kg/pallet. Gaylords, Big Bags or silo trucks are alternatively available.
Huntsman Polyurethanes is committed to your business and can offer fast and flexible response to your needs.

Believing in confidential dialogue, we offer direct links into the laboratories with full technical backup. Commercial support and dedicated customer service is available throughout Europe, Asia and the US.

**European Headquarters**
ACE@Huntsman.com
Phone: 32 (0)2 758 9420
Fax: 32 (0)2 758 7420
www.huntsman.com/pu/ACE

**The Huntsman story**
Global resources for local needs

Huntsman Polyurethanes is a business division of Huntsman Corporation. Huntsman is a global manufacturer and marketer of differentiated chemicals. Its 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 rapid and integrated growth in petrochemicals, Huntsman today has 14,000 employees and 78 operations in 24 countries. The company had 2006 revenues of over $13 billion.

Huntsman Polyurethanes warrants only that its products meet the specifications agreed with the buyer. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications.

While all the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NO GUARANTY, WARRANTY OR REPRESENTATION IS MADE, INTENDED OR IMPLIED AS TO THE CORRECTNESS OR SUFICIENCY OF ANY INFORMATION OR RECOMMENDATION OR AS TO THE MERCHANTABILITY, SUITABILITY OR FITNESS OF ANY PRODUCTS FOR ANY PARTICULAR USE OR PURPOSE. IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

NOTHING IN THIS PUBLICATION IS TO BE CONSTRUED AS RECOMMENDING THE INFRINGEMENT OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT AND NO LIABILITY ARISING FROM ANY SUCH INFRINGEMENT IS ASSUMED. NOTHING IN THIS PUBLICATION IS TO BE VIEWED AS A LICENCE UNDER ANY INTELLECTUAL PROPERTY RIGHT.

Products may be toxic and require special precautions in handling. The user should obtain Safety Data Sheets from Huntsman Polyurethanes and Huntsman Performance Products containing detailed information on toxicity, together with proper shipping, handling and storage procedures, and should comply with all applicable safety and environmental standards.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent on the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

**IROGRAN** is a registered trademark of Huntsman CORPORATION or an affiliate thereof, in one or more countries, but not all countries.

Copyright © 2007 Huntsman CORPORATION or an affiliate thereof. All rights reserved.