

Isopan 600

Polyester polyurethane rubber for the manufacture of technical rubber goods in the upper Shore A hardness range. Properly formulated compounds based on Isopan 600 offer a performance profile characterized by high abrasion resistance, strong tear and tensile properties, good resistance to oils and fuels, good ozone and weather resistance, low gas permeability, and good low-temperature behavior.

Material Definition

Composition: Polyaddition product based on an polyester polyol and isocyanate

Appearance: Light yellow cast blocks

Density [20 °C]: Approx. 1.2 g/cm³

Mooney viscosity [ML 1+4, 100 °C]: 20–32

Delivery form: Cast blocks

Application

Isopan 600 is used as a base polymer for high-hardness technical elastomer compounds and molded rubber goods requiring high abrasion resistance, high mechanical strength, and good chemical resistance. Typical target applications include seals, diaphragms, hydraulic gaskets, rollers, and other wear-resistant elastomer parts for demanding industrial service. The achievable final hardness and physical properties depend on the complete formulation, curing system, and processing conditions.

Processing

Isopan 600 compounds are typically processed on conventional rubber machinery such as open mills and internal mixers. Suitable process aids such as stearic acid may be used to reduce sticking.

Compounds containing IsoQure TT should be vulcanized within 24 hours after mixing.

Molded articles are mainly processed by compression molding.

Depending on formulation and equipment, transfer molding, injection molding, and extrusion may also be feasible.

Extrudates can be vulcanized in hot air under pressure.

Processing behavior, cure response, and final physical properties depend strongly on the overall formulation and curing conditions.

Use Cases

Typical application areas include:

- High-hardness technical molded parts
- Seals and diaphragms
- Hydraulic gaskets
- Rollers and roller coverings
- Wear-resistant industrial elastomer parts
- Elastomer goods for oil-, fuel-, and weather-exposed service

Performance Profile

Properly formulated compounds based on Isopan 600 are designed for:

- High abrasion resistance
- Strong tear and tensile properties
- Good fuel and oil resistance
- Good ozone and weather resistance
- Low gas permeability
- Good low-temperature behavior
- High mechanical strength
- Good chemical resistance

Recommended Additives

Recommended crosslinking agent: IsoQure TT

Further formulation guidance available on request.

Handling, Storage and Packaging

Storage: Store cool and dry in tightly closed original packaging.

Storage stability: 730 days from date of production when stored under recommended conditions.

Packaging: 50 kg carton on 500 kg skid.

Handling: For additional handling information please consult the current safety data sheet.

Regulatory Information

Under EU REACH, polymers are generally exempt from registration. Relevant regulatory obligations for constituent substances remain subject to applicable legislation.

Availability

- Americas [United States, Canada, South America]
- APAC [Asia-Pacific]
- ANZ [Australia, New Zealand]
- EU [European Union]
- PRC [People's Republic of China]
- UK [United Kingdom]

Disclaimer / Conditions

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For updates on product information, please check this web page regularly:
<https://kautschuk.com/products/elastomer/isopan-600>