

# TECHNICAL DATA SHEET

## POLYPROPYLENE TIPPLEN R 1059 A

Random copolymer for injection moulding

TIPPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN+

The joint product portfolio of MOL Petrochemicals and Slovnaft provides infinite opportunities

### DESCRIPTION

TIPPLEN R 1059 A is a random copolymer polypropylene with high flow properties for injection moulding applications for high speed injection moulding machines. The product shows excellent transparency and gloss. The grade contains clarifying and antistatic agent and made with special optical additive.

### APPLICATIONS

TIPPLEN R 1059 A is recommended for injection moulding for the production of household articles, containers and thin walled packaging for cosmetics, toiletries, herbs, confectionery, where the higher gas permeability is no problem. It is applicable for injection moulding of transparent food containers, which can be used in microwave oven.

### PRODUCT COMPLIANCE

See DDS.

### PROPERTIES

| Parameter                                   | Note | Test method | Unit              | Typical value |
|---------------------------------------------|------|-------------|-------------------|---------------|
| Melt Mass-Flow Rate (MFR) (230 °C /2.16 kg) | -    | ISO 1133-1  | g/10 min          | 84            |
| Tensile Strain at Yield                     | (1)  | ISO 527-1,2 | %                 | 13.5          |
| Tensile Stress at Yield                     | (1)  | ISO 527-1,2 | MPa               | 29            |
| Modulus of Elasticity in Tension            | (1)  | ISO 527-1,2 | MPa               | 1150          |
| Flexural Modulus                            | (1)  | ISO 178     | MPa               | 1100          |
| Izod Impact Strength (notched, 23 °C)       | (1)  | ISO 180/A   | kJ/m <sup>2</sup> | 4             |
| HDT (0.45 MPa, flatwise)                    | (1)  | ISO 75-1,2  | °C                | 89            |
| Rockwell Hardness                           | (1)  | ISO 2039-2  | R scale           | 80            |
| Haze                                        | (2)  | ISO 14 782  | %                 | 12            |

Typical properties, not to be used as specification.

(1) Average mechanical property values of several measurements carried out on standard injection-moulded test specimens prepared in accordance with ISO 294-1.

(2) Measured on specimen with 1 mm wall thickness

### PROCESSING

TIPPLEN R 1059 A can be used in conventional injection moulding machines. Recommended processing temperatures are 185-230 °C.

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### STORAGE AND HANDLING

Pellets are packed in 25 kg polyethylene bags and transported on shrink-wrapped or stretch-wrapped pallets at eligible load of polymer 1375 kg. We use adhesive between the bags in order to avoid their slipping. Pay attention to this fact during the removing of the bags from the pallets. The preferred method is to lift the bag at first without rotation. Heat treated pallets are provided by PRS, a member of the Faber Halbertma Group, operating a pooling system which collects the pallets after use, and organizes reuse as part of a sustainable, circular system. PRS pallets remain property of PRS at all times. Transportation in road silo or rail silo is also available. For more detailed information please contact a sales representative at SLOVNAFT or at MOL Petrochemicals.

Since polypropylene is a combustible substance, the fire safety rules applicable for combustible materials in warehouses and store rooms should be observed.

If polymer is stored in conditions of high humidity and fluctuating temperatures, then atmospheric moisture can condense inside the packing. If it happened, it is recommended the pellets to be dried before use. During the storage polypropylene should not be exposed to UV radiation and temperatures above 40°C. Producer does not take responsibility for any damages caused by adverse storage.

### REACH STATEMENT

Polymers are exempt of REACH registration. However, their raw materials which mean monomers and relevant additives have been registered. MOL Petrochemicals is committed to fully respect legislation and will only use REACH compliant raw materials. At this point in time PP TIPPLEN does not contain any substances specifically identified as SVHC at levels greater than 0.1%.

### RECYCLING

Polypropylene resins are suitable for recycling using modern recycling methods. In-house production waste should be kept clean to facilitate direct recycling.

### SAFETY

See MSDS.

### DISCLAIMER

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