

# GPSS 610®

GENERAL PURPOSE POLYSTYRENE

**diaki**  
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## MATERIAL DESCRIPTION

**Dioki GPSS 610®** is transparent general purpose polystyrene exhibiting excellent optical properties, good melt flow properties.

**Dioki GPSS 610®** is especially intended for injection moulding of thin-walled products having good optical properties. This polystyrene grade exhibits excellent processability with short processing cycles.

## APPLICATION

XPS, Manufacture of injection moulded, thin-walled, general purpose products, internal refrigerator parts, toys, packaging in cosmetics and medicine, toys.

## TECHNICAL PROPERTIES AND PROCESSING CONDITIONS

| PHYSICAL PROPERTIES           | STANDARD METHOD | VALUE | UNIT              |
|-------------------------------|-----------------|-------|-------------------|
| Melt Flow Index (200 °C/ 5kg) | ASTM D 1238     | 11    | g/10 min.         |
| Density                       | ISO 1183        | 1040  | kg/m <sup>3</sup> |

| THERMAL PROPERTIES                        | STANDARD METHOD | VALUE | UNIT |
|---|-----------------|-------|------|
| Vicat Softening Temperature (Rate B, 10N) | ASTM D 1525     | 95    | °C   |
| Heat Distortion Temp. (Metot B, 0.45 MPa) | ASTM D 648      | 82    | °C   |

| MECHANICAL PROPERTIES                  | STANDARD METHOD | VALUE | UNIT |
|--|-----------------|-------|------|
| <b>Tensile Properties</b>              | ASTM D 638      |       |      |
| Strength at Break                      |                 | 37,5  | MPa  |
| Elongation at Break                    |                 | 1,2   | %    |
| Tensile Modulus                        |                 | 3150  | MPa  |
| <b>Flexural Properties</b>             | ASTM D 790      |       |      |
| Strength                               |                 | 72    | MPa  |
| Modulus                                |                 | 3120  | MPa  |
| Izod Impact Resistance, Notched (23°C) | ASTM D 256      | 11,5  | J/m  |

| PROCESSING CONDITIONS               | VALUE   | UNIT |
|-------------------------------------|---------|------|
| Processed in Melt Temperature Range | 170-230 | °C   |
| Mould Shrinkage                     | 0,4-0,6 | %    |
| Tool Temperature                    | 20-60   | °C   |

## STORAGE AND HANDLING

**Dioki GPSS 610®** is packed in polyethylene bags of 25 kg on wooden pallets having dimensions of 110x130 cm as 1 pallet net 1.375 kg. (Depend on the costumers demand, net 1.250 kg bigbag can be supplied) The pallets are covered and secured with stretch film.

**Dioki GPSS 610®** should be protected from direct sunlight and rain/water. If possible, it should stored in dry, cool and closed area.

**Legal Information:** The above information is given based on the knowledge and experience of Dioki Petrokimya staff. Any information contained herein shall not be construed as a part of legally binding offer.

**Dioki PETROKİMYA SANAYİ A.Ş.**

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