

## **Grilon BRZ 234/1 W**

Grilon BRZ 234/1 W is a modified polyamide 6, suitable for tube extrusion.

Grilon BRZ 234/1 W is heat stabilized, shows a high flexibility and high impact strength. It is especially developed for the direct contact with automotive fuels.

**GRILON®**  
**EMS**

## PROPERTIES

### Mechanical Properties

		Standard	Unit	State	Grilon BRZ 234/1 W
Melt temperature	DSC	ISO 3146-C	°C	dry	215
Density		ISO 1183	g/cm <sup>3</sup>	dry	1.12
Tensile-E-modulus		ISO 527	MPa	dry	800
		ISO 527	MPa	cond.	380
Tensile strength at break		ISO 527	MPa	dry	40
		ISO 527	MPa	cond.	35
Elongation at break		ISO 527	%	dry	> 50
		ISO 527	%	cond.	> 50
Impact strength	Charpy, 23°C	ISO 179/1eU	kJ/m <sup>2</sup>	dry	no break
	Charpy, 23°C	ISO 179/1eU	kJ/m <sup>2</sup>	cond.	no break
Impact strength	Charpy, -30°C	ISO 179/1eA	kJ/m <sup>2</sup>	dry	no break
	Charpy, -30°C	ISO 179/1eA	kJ/m <sup>2</sup>	cond.	no break
Notched impact strength	Charpy, 23°C	ISO 1791/eA	kJ/m <sup>2</sup>	dry	no break
	Charpy, 23°C	ISO 179/1eA	kJ/m <sup>2</sup>	cond.	no break
Notched impact strength	Charpy, -30°C	ISO 179/1eA	kJ/m <sup>2</sup>	dry	5
	Charpy, -30°C	ISO 179/1eA	kJ/m <sup>2</sup>	cond.	8

### Processing

For extruding Grilon BRZ 234/1 W you have to consider an effective extractor fan, particular in the die area of the extruder.

### Storage

Grilon BRZ 234/1 W granules are supplied ready for processing in moisture-proof packing. The storage area should be dry. During colder times of the year, the temperature of granules must be equalised to that of the room before opening the packing. This avoids moisture condensation on the surface of the granules.

### Drying / Pre-drying

Grilon BRZ 234/1 W takes up moisture from the environment, as is typical for polyamides. If the granulate is left exposed or has been allowed to absorb water, then the material must be dried before processing. Processing of moist granulate reduces the optical (streaks) and mechanical (embrittlement) qualities of the tubes.

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### Drying requirements

Device	Temperature	Time
Dry air dryer (dew-point approx. -25 to -40°C)	80°C *	4-12 h
vacuum oven	100°C *	2-10 h

\* Before opening the oven the temperature should be reduced to below 70°C.

Over heating or over-long drying times can lead to yellowing of the granulate.

### Extrusion

Grilon BRZ 234/1 W can be processed using commercial 3-zone screws, suitable for Polyamides.

Recommended temperature profile:

Hopper zone	:	cooled
First barrel zone	:	230 - 240°C
Further barrel zones and flanges	:	240 - 250°C
Head	:	240 - 250°C
Nozzle	:	230 - 240°C

The ideal melt temperature is 230 - 250°C

The recommendation and data given are based on our experience to date, however, no liability can be assumed in connection with their usage and processing.