

# ROLEC Gehäuse-Systeme GmbH

## Technical datasheet Forprene 35 A (EPDM+PP)

Eigenschaften / Properties	Norm / Method	Einheit / Unit	Wert / Value
Shore Härte / Hardness	ASTM D 2240	Shore A	35
Dichte / Density	ASTM D 792	g / cm <sup>3</sup>	0,99
Zugfestigkeit / Tensile Strength	ASTM D 412	Mpa	3,5
Reißdehnung / Elongation at break	ASTM D 412	%	650
Weiterreißwiderstand / Tear strenght	ASTM D 624	N / mm	16
Druck-Verformungsrest Compression Set	ASTM D 395 – B	22h 70°C %      22h 100°C %	35      45
Zug-Verformungsrest / Tension Set	ASTM D 412	%	10
Temperatur / Temperature	-	°C	-40°C -- +125°C

### Processing

FORPRENE is manufactured by using the common thermoplastic processing technologies such as extrusion, co-extrusion, blow moulding, injection moulding (co-moulding and overmoulding with PP). Do to its polyolefinic nature, FORPRENE can be completely recycled and does not require predrying before ist use. Moreover, the processing costa are lower than vulcanized rubbers.

### Moulding

Screws for polyofines with LD  $\geq$  20 and a compression ratio from 2,5:1 to 3,5:1 are suggested. Temperatures in the cylinder range from 170°C to 190°C for soft types and from 180°C to 210°C for the hard types. FORPRENE plasticization speed must be high as well as the injection speed in accordance with the manufactured piece thickness. The recommended mould temperature is from 30°C to 60°C. Shrinkages change from 3% for softer grades to 1-1,5% for harder grades.

### Extrusion

The typical FORPRENE extruders are equipped with one screw for PP-PE, but a double screw can also be used. A  $\geq$  24D screw length and 3:1 about compression ratio are recommended. Extrusion temperatures range from 170°C to 190°C for softer grades and from 180°C to 210°C for harder grades.

