GUR® 4152 | PE-UHMW | Unfilled

Description

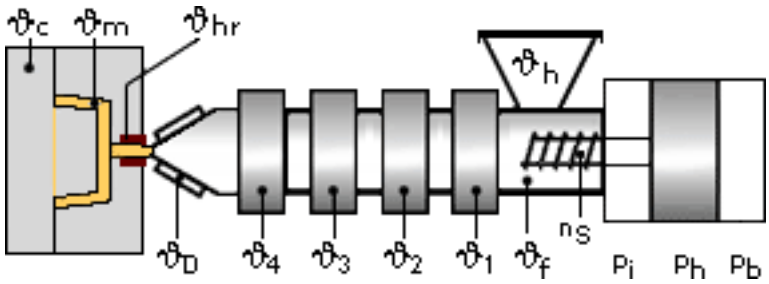
GUR 4152 UHMW-PE is a linear polyolefin resin in powder form with a molecular weight of approximately 7.5 MM g/mol calculated using Margolies equation. The extremely high molecular weight of this resin yields several unique properties including superior abrasion resistance and impact strength. This and GUR 4150 resins have the best abrasion resistance of all standard grades. Outstanding properties include a low coefficient of friction that results in self-lubricating, non-stick surfaces after processing. The resin is normally processed by compression molding or ram extrusion.

Physical properties	Value	Unit	Test Standard
Melt flow rate (MFR)		g/10 min	ASTM D1238
MFR temperature	**190**	°C	ASTM D1238
MFR load	**21.6**	kg	ASTM D1238

Mechanical properties	Value	Unit	Test Standard
Shore hardness D-scale	**61**	-	ASTM D2240
Coefficient dynamic friction - steel	**0.1**	-	Internal
Abrasion loss	**80**	-	Internal
Elongation @ break (73°F)	**>300**	%	ASTM D638
Elongation @ yield (73°F)		%	ASTM D638
Tensile modulus (73°F)	**100000**	psi	ASTM D638
Tensile strength @ yield (73°F)	**3100**	psi	ASTM D638
Tensile strength @ break (73°F)	**5080**	psi	ASTM D638

Thermal properties	Value	Unit	Test Standard
Vicat softening point	**80**	°C	ASTM D1525
Specific heat	**0.44**	BTU/(LB-°F)	Internal

Typical injection moulding processing conditions



Special Info:
Not for Injection Molding. For Ram Extrusion and Compression Molding only. See Ticona for processing.

Compression Molding

This polymer is normally processed by Compression Molding or RAM extruding.