



**Branched High Density Polyethylene
For Extrusion Applications**

RAPREX[®] R-100 is a high-density polyethylene based resin that exhibits an excellent balance of melt processability and physical properties due to its unique branched structure. It is a thermoplastic resin and is recyclable. Due to its broad molecular weight distribution and melt strength, RAPREX[®] R-100 is used for pipes, extruded profiles, sheet and large blow molded articles. Raprex[®] R-100 contains a robust stabilization package providing excellent melt stability as well as long-term heat aging.

Property	Standard	Unit	Value
Melt Flow Index (190°C, 2.16kg)	ASTM D1238	g/10min.	ND *
Melt Flow Index (190°C, 10kg)	ASTM D1238	g/10min.	0.24
Melt Flow Index (190°C, 21.6kg)	ASTM D1238	g/10min.	2.5
Density	ASTM D-792	g/cm ³	0.948
Tensile Strength @ Yield	ASTM D-638	psi (MPa)	5460 (37.7)
Elongation @ Yield	ASTM D-638	%	14
Tensile Strength @ Break	ASTM D-638	psi (MPa)	5040 (34.8)
Elongation @ Break	ASTM D-638	%	25
Izod Notched Impact Strength at Room Temperature (23 °C)	ASTM D-256	ft-lb/in (kJ/m)	3.2 PB* (0.16 PB*)
Izod Notched Impact Strength at -40 °C	ASTM D-256	ft-lb/in (kJ/m)	2.2 0.11
Brittleness Temperature	ASTM D-746	°F (°C)	< -103 (< -75)
Flexural Modulus	ASTM D-790	psi (MPa)	149,000 (1030)

* ND = too low to be measured; PB = partial break

The data contained in this document are based upon ASTM methods and procedures and are comprised of typical values that are neither intended to be viewed as nor relied upon as specifications. The customer should independently determine suitability for use. This data sheet is not intended to assure any properties or suitability for any specific purpose and is not intended to relieve processors from the responsibility of carrying out their own tests and experiments. Sterigenics U.S., LLC, its parent, subsidiaries and affiliates ("Sterigenics") make no representation, guaranty or warranty, express or implied. In particular, Sterigenics makes no representation, guarantee or warranty, express or implied, concerning the merchantability or fitness for a particular purpose of any of the products it supplies. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.