

HDPE, high density Polyethylen for waste containers (bins)			
Typical data			
Properties	SI Values	Units	Test methods
Polymer properties			
Melt flow rate (MFR)			ISO 1133
at 190 °C and 2.16 kg	g/10 min	4,0	
at 190 °C and 5 kg	g/10 min	10,5	
Melt volume rate (MVR)			ISO 1133
at 190 °C and 2.16 kg	ml/10 min	5,3	
at 190 °C and 5 kg	ml/10 min	14	
Density ¹⁾	kg/m ³	953	ISO 1183
Mechanical properties ¹⁾²⁾			
Tensile test ^{3) 4)}			ISO 527-2
stress at yield	MPa	26	
stress at break	Mpa	31	
strain at break	%	> 200	
tensile modulus	MPa	1100	
Creep modulus ^{5) 6)}			ISO 899
after 1 hour	MPa	500	
after 1000 hour	MPa	225	
Izod impact notched			ISO 180/A
at 23 °C	kJ/m ²	5	
at -30 °C	kJ/m ²	5	
Hardness Shore D	-	61	ISO 868
Thermal properties			
Heat deflection temperature ^{1) 2)}			ISO 75-2
at 0.45 (HDT/B)	°C	81	
Vicat softening temperature ^{1) 2)}			ISO 306
at 10 N (VST/A)	°C	124	
DSC test			DIN 53765
melting point	°C	132	
enthalpy change	J/g	203	
The material is specially developed for waste containers which have to meet specific standards.			
The material offers an ideal combination of stiffness and impact resistance.			
The material is UV-stabilised.			
1) Compression moulding of test specimen according to ISO 1872-2			
2) Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours			
3) Speed of testing: 50 mm/min			
4) Test specimen according to ISO 527-2 type 1BA, thickness 2 mm			
5) Test specimen according to ISO 3167, thickness 4 mm			
6) Determined at 23 °C, 3 MPa			
7) Determined in Rhodacal-DS10 at 60 °C, 2 MPa, thickness 3 mm			