

CEFLEX rPP Film – Certificate of Analysis

rPP Film is a high quality PP-rich recycle from household all-colors post-consumer flexible packaging waste that has been processed in a Quality Recycling Process (QRP). QRP includes additional sorting, hot washing with detergents, extrusion with homogenization and degassing as well as double melt filtration and de-odourization.

Processing advice:

After prolonged storage or for the manufacture of sensitive products, drying of the material prior to processing is recommended.

PROPERTY	UNIT		VALUE	COMMENTS	TEST METHOD
GENERAL					
Name	-		rPP Film		
Composition	wt%		75-80 PP, 5-10 PE, 10-15 other	Other=thermoplastics other than PE or PP	Internal
APPEARANCE					
Color	-		Grey, L:49.95, a*:-1.44 b*:2.55	R-SCI D65/10	ASTM E1164
Shape	-		Granules		
PHYSICAL					
Melt Flow Index (MFI)	g/10 min		6.8 28.1	2.16 kg, 230 °C 5 kg, 230 °C	ISO 1133
Density	g/cm³		0.89		ISO 1183
Ash content	wt%		2.5	after TGA - 600°C	ISO 11358
Moisture saturation (23 °C)	wt%		0.15	after submersion (H₂O, 24h)	ASTM D570
MECHANICAL – unoriented cast film, specimen type 5 (Thickness= 40 µm)					
Modulus	MD	MPa	150	1 mm/min	ISO 527
Tensile strength	MD	MPa	50	50 mm/min	ISO 527
Strain at break	MD	%	1100	50 mm/min	ISO 527
Tear strength	MD	N	4.2	200 mm/min	ISO 6383
Haze		%	72	TT C/2	ASTM D1003/8B
MECHANICAL – blown film*, specimen type 5 (Thickness= 60 µm)					
Modulus	MD	MPa	240	1 mm/min	ISO 527
Tensile strength	MD	MPa	40	50 mm/min	ISO 527
Strain at break	MD	%	970	50 mm/min	ISO 527
Dart drop resistance		g	21		ASTM D1709
Tear strength	MD	N	2.7	200 mm/min	ISO 6383
Haze		%	81	TT C/2	ASTM D1003/8B
OTHER					
Bulk density		g/cm³	0.55		EN 15344

* Film blowing with 19 mm single screw extruder, L/D = 18. Film blowing die 25 mm diameter and 0.55 mm die gap, Process parameters: temperature profile 170-190-210-210 °C, screw speed of 90 rpm and BUR=3.

CoA experimentally determined by UGent on an industrially relevant batch.