

Technical datasheet for: epsotech RP OU1 NC

Overview and Structure

epsotech RP OU1 NC is a compound of a biodegradable co-polyester (PBAT), Poly-lactic acid (PLA) and Calcium Carbonate. This product has a similar stiffness to ABS and HIPS and can be printed without corona treatment.

This is a compostable polymer compound, compliant in its composition with the European food stuff legislation for food contact, EU Directive 10 / 2011 / EC with amendment 2018/831 and US food contact notification for the main components: e. g. FCN 178, 475 and 907. Specific limitations and more details are given on request.

Typical Physical Properties

Property	Value	Unit	Standard	Test Method
GENERAL PROPERTIES:				
Density*	1.28 ~1.45	g/cm ³	ISO 1183	-
MECHANICAL PROPERTIES:				
Tensile Modulus	2100 ~ 2400	MPa	ISO 527	23°C 1mm/min
Yield stress	45 ~ 60	MPa	ISO 527	23°C 50mm/min
Elongation at Break	40 ~ 65	%	ISO 527	23°C 50mm/min
Stress at Break	20 ~ 30	%	ISO 527	23°C 50mm/min
THERMAL PROPERTIES:				
VICAT softening Point	57	°C	ISO 306	B/50
HDT-A	-	°C	ISO 075	HDT/A 1.8 MPa
UV STABILISATION:				
UV Stabilisation	-	-	-	-
BURNING BEHAVIOUR:				
Flammability Rating	-	-	-	-
Flammability Rating UL**	-	-	-	-
SURFACE/VOLUME:				
Oxygen Permeability Rate	28	cm ³ / (m ² · d · bar)	ASTM D 3985	
Water Vapour Permeability Rate	3.5	g / (m ² · d)	ASTM F 1249	
Transmission	Opaque	-	ASTM D 1003	
MISCELLANEOUS:				
Mould Shrinkage	0.5	%	-	-
Thermoforming Temperature	130 - 160	°C	-	-

Unless otherwise stated, products are tested at a typical thickness of 4mm

* The density quoted should only be used as a guide. This value can change depending upon the type and quantity of pigments or additives used.

** Fire behaviour values given by raw material supplier or by indicative test on raw material. Not intended as a specification

Supplemental Information

Chemical Contact and cleaning

Chemical resistance is influenced by many factors, including concentration, temperature, exposure time and material stress. Therefore the data should only be used as a guide.

Most common mild soaps or detergents dissolved in warm water can be used to effectively clean general dirt and surface contaminants, but in all cases should be objectively tested. Abrasive products will damage the surface.

The biodegradable nature of this product should be considered.

Dimensional Tolerances

Standard tolerances are subject to the local standard tolerance set. Extra tolerance requirements may be possible on request and by special agreement

Product Modification

Product code nomenclature takes in to account selected primary features of a product. The suffix may indicate a primary additional functionality, however, further multiple modifications are almost always possible and may be agreed upon and specified prior to our technical and commercial offer. Such enhancements are a normal part of our service capability and they do not affect the general characteristics listed in technical datasheets.

Disclaimer:

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