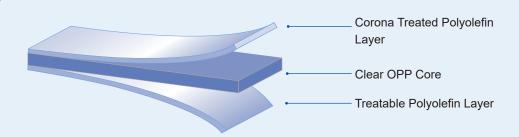
Rayoface™ CL

Technical Data Sheet

CL- Clear, High Gloss, Biaxially Oriented Polypropylene Film for Overlamination Applications.



Features

- High gloss surfaces
- Excellent clarity
- · Outstanding moisture resistance
- · No migratory additives
- Recyclable with polyolefin materials
- · High stiffness for conversion
- Balanced biaxial orientation for superior die cutting

Printability

The corona treated surface of Rayoface™ CL is compatible with a wide range of lamination adhesives, however, exact adhesive systems should be recommended by your supplier.



Technical Properties (Typical Values)

Property	Test Method	Test Conditions	Units	(CL	
Thickness	Innovia Films test		micron	20	30	
			gauge	80	120	
Yield	Innovia Films test		m²/kg in²/lb g/m²	54.9 38600 18.2	36.6 25700 27.3	
Optical: Gloss Haze (wide angle)	ASTM D 2457 ASTM D 1003	45° 2.5°	%		75 3.0	
Tensile strength	ASTM D 882	Strain rate 50%/ min	T kpsi M	D 1 D 3	10 70 0.4 4.6	
Elongation at break	ASTM D 882	Strain rate 50%/ min	% M T		30 10	
Elasticity modulus (1% secant)	ASTM D 882	Strain rate 10%/ min	kpsi M	D 22 D 3	500 200 62 19	
Dimensional stability	Innovia Films test	60 secs at 120°C (248°F) 60 secs at 130°C (266°F)	M	D 1 D 7	3.0 Nil 7.0 I.0	

MD Machine Direction TD Transverse Direction

All properties are tested under standard laboratory conditions: $23 \pm 2^{\circ}$ C, $50 \pm 5\%$ RH,(73 ± 4 F, $50 \pm 5\%$ RH), unless otherwise stated. Where relevant, tests are based on international testing standards. RayofaceTM CL - 1 of 2 - 0120



Rayoface™ CL

Technical Data Sheet

Conversion

The balanced biaxial orientation of Rayoface™ CL results in excellent die cutting performance, enhancing label edge appearance and prolonging die life.

Reel Specifications Nominal Reel Diameters

Film	Core Size/(mm)	Approx Outside Dia/(mm)	Length/(metres)
CL20	77 153	330 785	3800 22800
CL30	77 153	330 871	2500 18300
Film	Core Size/(in)	Approx Outside Dia/(in)	Length/(feet)
Film CL80	Core Size/(in) 3 6	Approx Outside Dia/(in) 13.0 31.0	Length/(feet) 12500 75000

Alternative reel lengths/core sizes are available subject to negotiation.

The print coating is available on either the inner or outer surface of Rayoface™ CL.

Film Storage and Handling

For the storage of Rayoface™ CL it is recommended that dry conditions at temperatures below 30°C (86°F) are employed to minimize any deterioration of surface discharge treatment level. Rayoface™ CL is suitable for use for 6 months from the date of delivery and stocks should be used in rotation. Films should be allowed to reach operating room temperatures for 24 hours before use.

Food Contact

Rayoface™ CL complies with the applicable EU and US legislation for most applications involving direct contact with foods. Full details are given on the Declaration of Compliance. Customers intending to use Rayoface™ CL in a food contact application should request a copy of this document from Innovia Films. Details of compliance with food contact legislation in non-EU countries are also available upon request.

Health & Safety Guidelines

For Health & Safety information, please refer to literature reference L190.

Disclaimer: Innovia Films or any of its affiliated companies (hereinafter 'Innovia Films') declines any liability with respect to the use made by any third party of the information contained herein. The information contained herein represents Innovia Films' best knowledge thereon without constituting any express or implied guarantee or warranty of any kind (including, but not limited to, the accuracy, the completeness or relevance of the data set out herein). Innovia Films is the sole owner or authorised user of the intellectual property rights relating to the information communicated. The information relating to the use of the products is given for information purposes only. No guarantee or warranty is provided that the product is adapted to the client's specific use. The client should perform his own tests to determine the suitability for a particular purpose. The final choice of use of a product remains the sole responsibility of the client.

Regional Offices:

Europe (UK) Tel +44 16973 42281 Americas (USA) Tel +1 800 424 6273 Asia-Pacific (Aus) Tel +61 3 9303 0600





www.innoviafilms.com email: labels@innoviafilms.com ™Trademark of Innovia Films

Rayoface $^{\text{TM}}$ CL - 2 of 2 - 0120

