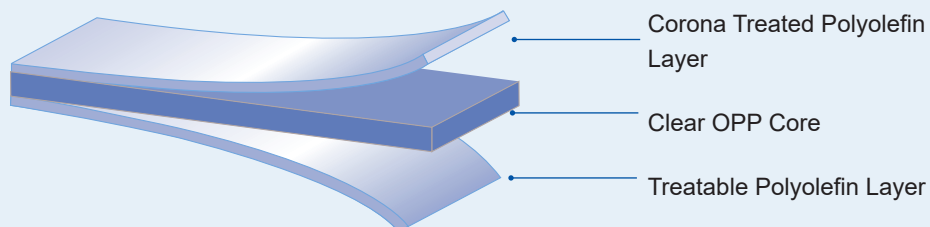


Encore C45_{cn}

Technical Data Sheet



C45_{cn} - Carbon Neutral* Clear, Biaxially Oriented Polypropylene Film for Facestock Applications.



Technical Features

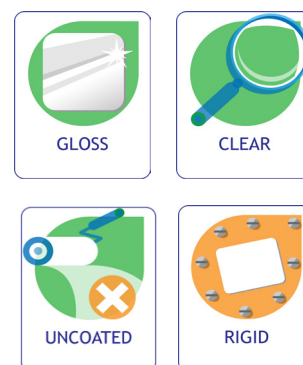
- High MD stiffness 45um 'bubble' film
- Corona treated print surface
- No migratory additives
- Excellent clarity for 'no-label look'
- Excellent hot/cold moisture resistance
- Semi-squeeze performance
- Balanced biaxial orientation for superior die cutting
- High gloss surface

Sustainable Features

- *Carbon Neutral on a cradle to gate basis.
- Certified from bio-sourced renewable resins on a mass balance basis
- International Sustainability & Carbon Certification (ISCC) Certified
- Contributes to reducing carbon footprint and reducing the use of fossil resources
- High MD stiffness 45um 'bubble' film giving 10% material reduction versus standard 50 um films
- Recyclable with polyolefin materials

Applications

Encore C45_{cn} can be printed by traditional flexographic and gravure processes. However, exact ink systems should be recommended by your supplier. Additional in-line corona treatment is recommended for optimum performance.



Technical Properties (Typical Values)

Property	Test Method	Test Conditions	Units	C45 _{cn}
Thickness	Innovia Films test		micron	45
			gauge	180
Yield	Innovia Films test		m ² /kg	24.4
			in ² /lb	17150
			g/m ²	41.0
Optical: Gloss Haze (wide angle)	Innovia Films test		%	85
				<2.0
Tensile strength	ASTM D 882	Strain rate 50%/min	MN/m ²	MD: 200
				TD: 180
			kpsi	MD: 29.0
				TD: 26.1
Elongation at break	ASTM D 882	Strain rate 50%/min	%	MD: 105
				TD: 120
Elasticity modulus (1% secant)	ASTM D 882	Strain rate 10%/min	MN/m ²	MD: 2400
				TD: 2200
			kpsi	MD: 348
				TD: 319
Dimensional stability	Innovia Films test	60 secs at 120°C (248°F)	%	MD: 3.0
				TD: Nil
		60 secs at 130°C (266°F)		MD: 6.0
				TD: 1.0

MD Machine Direction TD Transverse Direction All properties are tested under standard laboratory conditions: 23 ± 2°C, 50 ± 5% RH unless otherwise stated.

Where relevant, tests are based on international testing standards.
Ref C45_{cn} - 1 of 2 - 0221

Encore C45_{cn}

Technical Data Sheet



Conversion

The balanced biaxial orientation of Encore C45cn results in excellent die cutting performance, enhancing label edge appearance and prolonging die life. The high machine direction stiffness and tensile strength produces excellent matrix stripping and superior high speed label dispensing.

Reel Specifications

Nominal Reel Diameters

Film	Core Size/(mm)	Approx Outside Dia/(mm)	Length/(metres)
C45cn	153	875	12300
		1060	18300
		1217	24300

Film	Core Size/(in)	Approx Outside Dia/(in)	Length/(feet)
C180cn	6	34.4	40300
		41.7	60000
		47.9	79700

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

The corona treated surface is available on either the inner or outer surface of Encore C45cn.

Film Storage and Handling

Care should be taken to protect reels of film from storage temperatures above 30°C (86°F) and localised sources of heat above 45°C (115°F). The reels should remain in the protective coverings supplied until ready for use on converting machinery. Converted reels, in both master and slit reel form should be similarly protected at all times. Encore C45cn 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

Encore C45cn 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 Encore C45cn 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.

Ref C45cn - 2 of 2 - 0221

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

