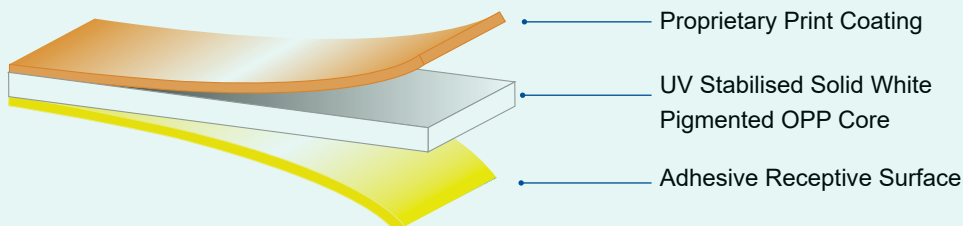


Rayoart™ GWP

Technical Data Sheet

GWP - White, High Gloss, Two Side Coated, Biaxially Oriented Polypropylene Film with Enhanced UV Stability, for Graphic Art or Label Applications.

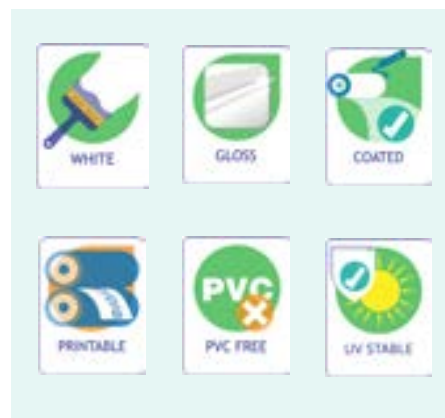


Features

- UV stabilised for outdoor applications
- High opacity
- Extremely easy to apply and remove at low and high temperatures
- High resistance to tearing during handling
- Excellent printability with conventional printing systems
- Reverse side coating gives enhanced adhesive anchorage
- High stability during adhesive lamination and printing processes
- Balanced biaxial orientation for superior die cutting of decals and stickers
- Recyclable with polyolefin materials
- Excellent hot/cold moisture resistance
- Excellent whiteness

Printability

Rayoart™ GWP has a proprietary top coating which gives outstanding print performance. The highly functional surface gives wide ink and process capability and enhances ink adhesion and scratch resistance to the final printed graphic. Suitable for sheet-fed UV and traditional offset and screen processes when converted on paper-based release liners. For wide-format digital processes, both UV and Latex inkjet printing give excellent results. Rayoart™ GWP is NOT suitable for solvent/eco-solvent inkjet processes. The print surface is compatible with wide range of adhesives for over-lamination processes. Always consult your adhesive and ink supplier for recommendations.



Technical Properties (Typical Values)

Property	Test Method	Test Conditions	Units	GWP		
Thickness	Innovia Films test		micron	60	92	
			gauge	230	360	
Yield	Innovia Films test		m ² /kg	17.0	11.1	
			in ² /lb	12000	7800	
			g/m ²	58.8	90.1	
Optical: Gloss	ASTM D 2457	45°		50	60	
				Optical opacity	Innovia Films test	80
Tensile strength	ASTM D 882	Strain rate 50%/min	MN/m ²	MD	175	180
				TD	155	170
			kpsi	MD	23.9	26.1
				TD	21.0	24.6
Elongation at break	ASTM D 882	Strain rate 50%/min		MD	95	110
				TD	115	120
Elasticity modulus (1% secant)	ASTM D 882	Strain rate 10%/min	MN/m ²	MD	2400	2000
				TD	2100	1900
			kpsi	MD	348	290
				TD	304	276
Dimensional stability	Innovia Films test	10 min at 70°C (158°F)		MD	0.4	
				TD	-0.3	
UV resistance	ASTM G154	Continuous Dry Exposure: 0.84W/m ² @ 340nm, 50°C/122°F, 50%RH		> 3000hrs		
		Dry: Wet Cycle Exposure: 4 hrs @ 0.84W/m ² @ 340nm, 50°C/122°F, 50%RH 4 hrs @ 50°C/122°F, 100%RH		> 3000hrs		
Outdoor durability	Vertical Applications*	Central Europe		4 Yrs		

*Unconverted film
 MD Machine Direction TD Transverse Direction
 All properties are tested under standard laboratory conditions: 23 ± 2°C, 50 ± 5% RH, (73 ± 4F, 50 ± 5% RH), unless otherwise stated. Where relevant, tests are based on international testing standards.
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Rayoart™ GWP

Technical Data Sheet

Conversion

High speed web processing of Rayoart™ GWP is very stable due to low elongation, high machine direction stiffness and excellent web flatness. The adhesive receptive coating is compatible with a wide range of water-based, solvent-based and hot-melt pressure sensitive adhesives – enhancing film-to-adhesive key and allowing clean peel removability. The balanced properties of Rayoart™ GWP give excellent cutting performance allowing crisp clean edges and smooth curves. Tear initiation resistance is very high. Where possible corner cuts and internal angles should have a radius. Plasticiser and migratory additive-free, Rayoart™ GWP allows enhanced adhesion and consistent peel stability through the lifetime of the applied graphic. Low elongation and high tear resistance supports fast clean removal of the graphic at the end of a campaign.

Reel Specifications

Nominal Reel Diameters

Film	Core Size/(mm)	Approx Outside Dia/(mm)	Length/(metres)
GWP60	153	877	9300
GWP92	153	873	6000

Film	Core Size/(in)	Approx Outside Dia/(in)	Length/(feet)
GWP230	6	32.0	30500
GWP360	6	34.3	19700

The winding indicator on the reel refers to the **printable** surface. For adhesive lamination, the adhesive should be applied to the non-printable surface.

The printable surface of Rayoart™ GWP is available on either the inner or outer surface of the wound roll.

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 (113°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. Rayoart™ GWP 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

Rayoart™ GWP does not comply with either EU or US legislation for direct contact with food. For specific enquires please contact our Technical Services Department.

Health & Safety Guidelines

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

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