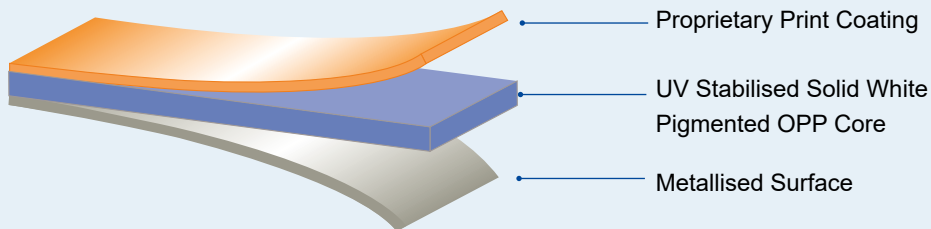


# Rayofoil™ MWGS

## Technical Data Sheet

**MWGS** - Top Coated White, High Gloss, Reverse Metallised Biaxially Oriented Polypropylene Film with enhanced UV stability for Graphic Arts Applications.

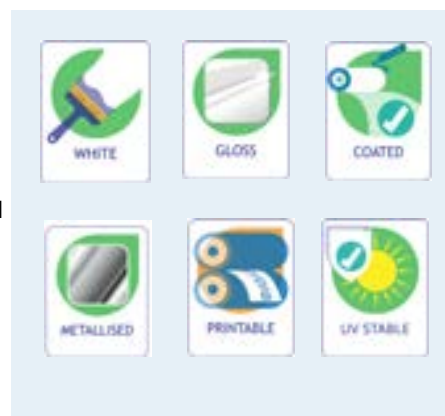


### Features

- UV stabilised for outdoor applications
- 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 metallisation for superior opacity
- 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

**MWGS92(360)** 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. Rayofoil™ MWGS 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	MWGS
Thickness	Innovia Films test		micron	92
			gauge	360
Yield	Innovia Films test		m <sup>2</sup> /kg	11.1
			in <sup>2</sup> /lb	7800
			g/m <sup>2</sup>	90.1
Optical density	Innovia Films test			3.0
Tensile strength	ASTM D 882	Strain rate 50%/min	MN/m <sup>2</sup>	MD 180
			TD 170	
Elongation at break	ASTM D 882	Strain rate 50%/min	%	MD 110
				TD 120
Elasticity modulus (1% secant)	ASTM D 882	2 secs; 0.10MN/m <sup>2</sup> 2 secs; 15 psi	MN/m <sup>2</sup>	MD 2000
				TD 1900
Dimensional stability	Innovia Films test	60 secs at 120°C (250°F) 60 secs at 130°C (265°F)	%	MD 3.0
				TD Nil
				MD 7.0
				TD 1.0
UV resistance	ASTM G154	Continuous Dry Exposure: 0.84W/m <sup>2</sup> @ 340nm, 50°C/122°F, 50%RH		> 3000hrs
				Dry: Wet Cycle Exposure: 4 hrs @ 0.84W/m <sup>2</sup> @ 340nm, 50°C/122°F, 50%RH 4 hrs @ 50°C/122°F, 100%RH
Outdoor durability	Vertical Applications*	Central Europe		4 Yrs

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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## Technical Data Sheet

### Conversion

High speed web processing of Rayofoil™ MWGS 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 Rayofoil™ MWGS 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, Rayofoil™ MWGS 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)
MWGS92	153	873	6000

Film	Core Size/(in)	Approx Outside Dia/(in)	Length/(feet)
MWGS360	6	34.3	19700

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

The print coating is available on either the inner or outer surface of Rayofoil™ MWGS.

### Film Storage and Handling

Rayofoil™ MWGS should be stored in dry conditions 30°C (86°F) and localised sources of heat above 45°C (115°F) should be avoided. Exposure to high levels of humidity, moisture due to condensation and water splashes should also be avoided. Reels of Rayofoil™ MWGS are delivered in a high barrier protective covering, the reels should remain in this protective covering until ready for conversion. Converted reels, in both master and slit form should also be similarly protected at all times. Rayofoil™ MWGS is suitable for use for 4 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

Rayofoil™ MWGS 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 contact our labels development department.

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