



Ultra Clear Removable Overlaminating Film 76991

Product Data Sheet

Updated : September 2002

Supersedes : July 2002

Product Description Ultra Clear Removable Overlaminating Film 76991 is a highly transparent clear overlaminating film with separate release liner.

Physical Properties
Not for specification purposes

Adhesive Type	Acrylic 15g/sqm
Backing	Polyester
Liner	Polyester
Thickness	Backing 36 micron Liner 50 micron
Colour	Backing Clear Liner Opaque White
Shelf Life	12 months from date of despatch by 3M when stored in the original carton at 21°C (70°F) & 50 % Relative Humidity

Performance Characteristics
Not for specification purposes

Peel Adhesion to: Glass Aluminium Polycarbonate	1.6 N +/- 1.0 0.6 N +/- 0.4 2.2 N +/- 1.2	FINAT FTM2 (90 deg Peel)
Release	6 – 20 gram	FINAT FTM3 (50mm at 300mm/min)
Thickness : Total Overlaminates Liner	100 +/- 10 micron 50 +/- 7 micron 50 +/- 3 micron	TAPPI 411

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Performance Characteristics Contd...
Not for specification purposes

Breaking Strength, Overlaminat e : Machine Direction Transverse Direction	19 Kgf / mm ² 24 Kgf / mm ²	ASTM D882-83
Elongation at Break, Overlaminat e : Machine Direction Transverse Direction	125 % 80 %	ASTM D882-83
Optical : Haze	< 2% (typical)	ASTM – 1003 – 77
<p>Environmental Ageing Tests Removable Overlaminat e film applied to hardcoated polycarbonate 24 hours prior to testing. Tests carried out at conditions noted below. After test samples left at standard conditions for 2 hours, then evaluated. Standard conditions are 23°C and 50% Relative Humidity.</p>		
Parameter	Test	Performance
Cold	-40°C for 16hr	Appearance is good. Removal smooth with no adhesive transfer or residue
Heat	+85°C for 16hr	Appearance is good. Removal smooth with no adhesive transfer or residue. Removal tighter than sample left at standard conditions
Change of Temperature	-40°C for 2hr then +85°C for 2 hr. Repeat 5 times. Change time 10 sec.	Appearance is good. Removal smooth with no adhesive transfer or residue
Damp Heat Cycle	Constant 95% R.H. +25°C for 12hr then +55°C for 12hr. Repeat 6 times	Appearance is good. Removal smooth with no adhesive transfer or residue. Removal slightly tighter than sample left at standard conditions.

General Information

- Before application the surfaces must be free from oil, fat, dust and solvents. Best results are achieved when applied between 10°C and 40°C.
- The product should be stored at room temperature (10°C to 40°C) and a relative humidity of 50%. Protect from direct UV light.
- Maximum recommended storage time should be 12 months from the date of purchase.
- The product has a high transparency.
- The product is resistant to :
 - Moisture : good
 - Oil : good
 - Solvents : good
- When applied to aluminium, glass and polycarbonate, clean removal can be achieved after :

Room Temperature (23°C) : 6 months

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Application Ideas

- Ultra Clear Removable Overlaminating Film 76991 is recommended for the temporary protection of sensitive surfaces against dirt, dust and damage during processing, storage and mounting etc.
- Ultra Clear Removable Overlaminating Film 76991 has a low level of adhesion and is suitable for protection of many surfaces including :
 - Varnished / hardcoated surfaces
 - Aluminium
 - Plastic surfaces

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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.



Tapes & Adhesives

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