

July, 2009

## 3M™ Flexomount™ Solid Printing Tape 411DL

### Product Description

3M™ Flexomount™ Solid Printing Tapes are double coated tapes designed for mounting photopolymer and rubber printing plates to flexographic printing cylinders or sleeve systems. The adhesive systems are specially formulated for clean removability from both the plate and the print cylinder.

Flexomount tapes have a solid vinyl carrier which is designed for printing solids and line work.

### Product Features

- Gray double coated tape with a soft rubber adhesive on each side of a vinyl carrier.
- Available in double or single liner.
- This product complies with RoHS (Restriction of Hazardous Substances): EU Directive 2002/95/EC. RoHS compliant means that the product does not contain any of the substances in excess of the maximum concentration values as amended by Commission Decision 2005/618/EC.

# 3M™ Flexomount™ Solid Printing Tape 411DL

## Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

## Typical Physical Properties

Property	Values		Notes
Thickness	0.38 mm	15 mil	All thicknesses are nominal performance thicknesses for which the products are targeted to perform during the flexographic printing operation.
Lot to Lot Tolerance	± 0.038 mm	± 1.5 mil	
Typical Application Area Caliper Variation	± 0.015 mm	± 0.6 mil	Typical application area is 18 in. x 6 ft. = 1 square yard, 457.2 mm x 1828.8 mm = 0.8361 m <sup>2</sup> . Caliper variation defined as ± 2 standard deviations.
Adhesive	Soft Rubber		
Adhesive Carrier	Solid Vinyl (Gray)		
Density	1060 kg/m <sup>3</sup>	70 lb/ft <sup>3</sup>	
Paper Liner Thickness	0.102 mm	4 mil	
Poly Liner Thickness	0.102 mm	4 mil	
Type of Printing	Solids and Line printing where maximum ink density is critical		
Type of Plate	Rubber & Photopolymer		

## Plate Side Adhesion

Rubber: High  
Photopolymer: High

## Typical Performance Characteristics

Peel Adhesion		Substrate
5.5 N/cm	50 oz/in	Stainless Steel
3.3 N/cm	30 oz/in	Composite Sleeve
4.4 N/cm	40 oz/in	Photopolymer
5.5 N/cm	50 oz/in	Rubber

Property: Peel Adhesion  
Method: ASTM D3330

## Typical Performance Characteristics (continued)

### Solvent Resistance

Water - Excellent  
 Alkanes - Good  
 Alcohols - Fair  
 Acetates - Poor

Property	Values		Method	Test Condition
Static Shear	10000 min		ASTM D3654	1000 g @ 70°C (158°F)
Static Shear	10000 min		ASTM D3654	500 g @ 70°C (158°F)
Heat Resistance	49 °C	120 °F		

### Available Sizes

Property	Values	
Standard Roll Length	32.9 m	36 yd
Master Width	1371.6 mm	54 in
Normal Slitting Tolerance	± 0.795 mm	± 1/32 in

### Design Considerations

There are four general considerations for selecting the right mounting tape: the thickness of the tape, the type of printing plate, the adhesion properties and the type of printing.

- **Tape Thickness:**

3M™ Flexomount™ Solid Printing Tape products range in thickness in order to meet undercut or pitch diameters that are common on flexographic printing presses. Tapes are available for 10, 15 and 20 mil (0.25, 0.38 and 0.50 mm) applications.

- **Type of Printing Plate:**

The adhesive systems on each tape have been developed for bonding to photopolymer or rubber printing plates.

- **Adhesion Properties:**

Flexomount solid printing tapes come in two different adhesion levels: standard (gray) and repositionable (black).

3M™ Flexomount™ Tape 411DL comes with the standard adhesive. This product has excellent adhesion to both rubber and photopolymer plates. The high adhesion makes it a good choice for long runs and helps reduce the tendency for plate edge lifting.

### Storage and Shelf Life

To obtain best performance, use this product within 12 months from date of manufacture.

### Industry Specifications

Complies with RoHS (Restriction of Hazardous Substances): EU Directive 2002/95/EC. RoHS compliant means that the product does not contain any of the substances in excess of the maximum concentration values as amended by Commission Decision 2005/618/EC.

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**References**

**Safety Data Sheet (SDS)**

[https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=411DL](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=411DL)

**Family Group**

	411DL	412DL	447DL
Thickness (mm)	0.38	0.5	0.25
Adhesive	Soft Rubber	Soft Rubber	Firm Rubber
Adhesive Carrier	Solid Vinyl (Gray)	Solid Vinyl (Gray)	Solid Vinyl (Gray)
Paper Liner Thickness (mm)	0.102	0.102	0.102
Poly Liner Thickness (mm)	0.102	0.102	0.102

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# 3M™ Flexomount™ Solid Printing Tape 411DL

## Family Group (continued)

	411DL	412DL	447DL
Type of Printing	Solids and Line printing where maximum ink density is critical	Solids and Line printing where maximum ink density is critical	Solids and Line printing where maximum ink density is critical
Type of Plate	Rubber & Photopolymer	Rubber & Photopolymer	Rubber & Photopolymer

## ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

