

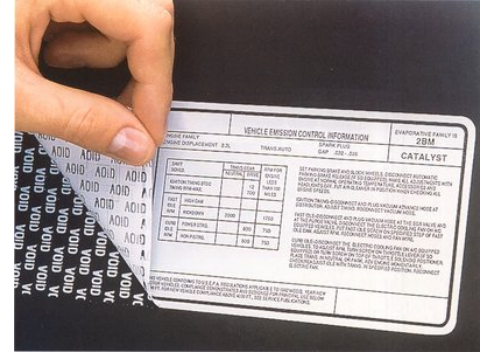
# 3M™ Void Polyester Durable Label Material FMV02

## Product Description

3M™ Void Polyester Durable Label Materials are tamper-indicating stocks designed to provide a “void” message in the facestock when removal is attempted. These void polyester labels utilize 3M™ Adhesive P1410 which is an aggressive tackified emulsion acrylic adhesive that offers excellent adhesion to a wide variety of substrates, including polyolefins.

## Product Features

- The polyester film is top coated to accept most film ink systems and thermal transfer printing.
- Meets CONEG requirements.
- Liner is designed for high-speed die-cutting and matrix stripping. Not recommended for sheet on press applications. The C2S version has a light coating of silicone on the backside to reduce label pick and is effective when used in conjunction with soft adhesives and heavy adhesive coating weights. The remoist version has been remoisturized after silicone coating to restabilize the sheet and reduce side curl.



# 3M™ Void Polyester Durable Label Material FMV02

## Technical Information Note

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

## Construction Tested

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 0.9 mils of adhesive on a stainless steel panel.

## Typical Physical Properties

Property	Values	
Facestock	Silver Void Polyester TC	
Facestock Thickness	0.05 mm	2 mil
Adhesive	P1410 Perm. 18	
Liner	50# SC semi-bleached super calendered kraft sheet	
Liner Thickness	0.079 mm	3.1 mil
Conformability	Semi-rigid – Label is suitable for flat or slightly curved surfaces.	
Adhesive Coat Weight	1.75 g/100 in <sup>2</sup> ± 10%	

## Note

Calipers are nominal values

## Typical Performance Characteristics

Property	Values		Method	Notes
Application Temperature	5 to 49 °C	40 to 120 °F		
Service Temperature Range	-29 to 115 °C	-20 to 240 °F		
180° Peel Strength	5.28 N/cm	48 oz/in	TLMI	12 in/min, 1 in wide sample
Loop Tack	3.16 N/cm	28.8 oz/in	TLMI	12 in/min, 1 in wide sample
Shear	1 hr		TLMI	0.25 in <sup>2</sup> x 500g
Release Range	15 to 50 g/2 in		TLMI	180° removal, 300 in/min

## Handling/Application Information

### Application Ideas

- Tamper-indicating labels and seals for packaging applications.
- Non-transferable durable goods label.

### Application Techniques

The tamper-indicating mechanism (i.e. the “void” message both on the facestock and on the substrate) depends upon adequate adhesion of the label to the substrate. A sufficient bond may not develop on all surfaces due to low surface energy (e.g. PTFE), contaminated or textured surfaces. Therefore, it is important to determine the suitability of the product in the intended application by carefully pretesting. The primary function of the products is to effect a non-transferable (non-reusable) label seal by causing the “void” message to appear on the facestock when removal from the substrate is attempted. As a result of the primary function, a “void” message is also transferred to the substrate and can be removed by hand rubbing or by solvent wiping.

Our tamper-indicating product line is designed to indicate tampering by destructing when an attempt is made to remove the label. Since no tamper-indicating feature is 100% tamper proof, careful consideration must be taken when designing label seals. When the consequences of tampering could be severe, such as injury or loss of human life or significant monetary loss, these products are not recommended as the sole means of package or product tamper indication. In these instances, additional methods in combination with the labels should be considered so that the tamper-indicating features are commensurate with the requirements of the application.

### Dispensing Equipment

As care should be taken not to disturb the tamper-indicating feature by pre-destructing the “void” message when manually removing the label from the liner, slowly remove the liner from the label at a 90° angle. It is recommended that the user test samples for each roll of label seals by laminating a representative label seal to the specific application surface to assure its function meets expectations. This test can be run after 10 minutes dwell; however, final judgement should be based on 72 hours dwell at room temperature prior to testing.

# 3M™ Void Polyester Durable Label Material FMV02

## Printing

Gloss topcoat is designed to be printable with a variety of film inks and thermal transfer ribbons. The following inks and thermal transfer ribbons have been evaluated and found to give excellent adhesion when tested with 3M™ Tape 610 and 3M™ Tape 810. However, press conditions vary and proper evaluation using your specific conditions is critical and highly recommended for successful ink and ribbon adhesion.

Supplier	UV Inks	Ink Series	Printing Process
XSYS Print Solutions		UNV80071	Letterpress
		USC50022	Screen
		USC10031	Screen
Environmental Inks		Ultra Kote 1800 OPV	Flexo
Nazdar		PSST-3952	Screen
Norcote		02-022, 80049, 02304, 021019	Screen
Water Based			
XSYS Print Solutions		HMF80071	Flexo
		HMF90100	Flexo
		MHF30004	Flexo
Water Ink Technologies		WFLO 42976	Flexo
Environmental Inks		Aqua Polyscreen Plus	Flexo
		Aqua Poly Cup	Flexo
Wykoff Inks		SCF 6551	Flexo
Solvent Based			
Siegwerk Ink		FCTB65L2	Flexo
		FCTD65L4	Flexo
		FCTE65L3	Flexo
		FCTH65L5	Gravure
		GV124	Screen
Nazdar			
Thermal Transfer Ribbon Supplier		Ribbon Series Ribbon	Type
Armor		AXR7 +	Resin
DNP		W137-C	Wax
		M-250	Wax/Resin
		R510-W	Resin
iimak		SP330, DC400	Resin
		Prime Mark, PM350	Wax/Resin
Ricoh		B110A	Wax/Resin
		BC110C	Resin
Sony		3022, 4085 Plus	Wax
		4070	Resin (UV+)
		4075	Resin

## Converting

### Die-Cutting:

The compact “void” message permits manufacture of labels as small as 1/2 in. x 1 1/4 in. (13 mm x 32 mm).

It is recommended that the user test for the presence of the “void” message on every roll of label seals as they process them, to insure the product quality and consistency. Which can be done by laminating a label seal to an untreated polyester film test surface. The label seal should be wiped down with a squeegee, allowed to dwell 10 minutes, and then removed to observe the presence and functions of the “void” message on both the facestock and the substrate. It is also recommended that the user test each lot of label seals on the actual application surface to assure the function of the “void” message.

## Storage and Shelf Life

Store under normal conditions of 70°F (21°C) and 50% relative humidity. To minimize the effects of humidity on the products, package the die-cut and printed stock in polyethylene bags. Low density polyethylene (2-4 mils) can help prevent humidity penetration. To obtain best performance, use this product within 24 months from the date of manufacture.

## Trademarks

3M is a trademark of 3M Company.

# 3M™ Void Polyester Durable Label Material FMV02

## Family Group

	FMV02	FMV12	FMV22	FMV32	FMVOE
Facestock	Silver Void Polyester TC	White Void Polyester EDP	White Void Polyester TC	Silver Void Polyester Translucent EDP	Silver Void Polyester TC
Facestock Thickness (mm)	0.05	0.05	0.05	0.05	0.05
Adhesive	P1410 Perm. 18	P1410 Perm. 18	P1410 Perm. 18	P1410 Perm. 18	P1410 Perm. 18
Liner	50# SC semi-bleached super calendered kraft sheet	50# SC Remoist semi-bleached super calendered kraft sheet	50# SC semi-bleached super calendered kraft sheet	50# SC Remoist semi-bleached super calendered kraft sheet	50# SC C2S semi-bleached super calendered kraft sheet
Liner Thickness (mm)	0.079	0.079	0.079	0.079	0.079

## References

1. 3m.com Product Page  
Url: [https://www.3m.com/3M/en\\_US/company-us/all-3m-products/~/-/3M-Tamper-Evident-Label-Materials/?N=5002385+3291133902&rt=rud](https://www.3m.com/3M/en_US/company-us/all-3m-products/~/-/3M-Tamper-Evident-Label-Materials/?N=5002385+3291133902&rt=rud)
2. Safety Data Sheet  
Url: [https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=FMV02](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=FMV02)

## ISO Statement

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

## Product Selection and Use

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

## Warranty, Limited Remedy, and Disclaimer

Unless stated otherwise in 3M's product literature, packaging inserts or product packaging for individual products, 3M warrants that each 3M product meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product packages. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's application. If the 3M product is defective within the warranty period, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to replace the product or refund the purchase price.

## Limitation of Liability

Except where prohibited by law, 3M and seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

