

3M

Gripping Material

Plain backed

(For sewing)

GM613

← Ultra Soft →

GM630

← Very Soft →

GM640

← Soft →

Adhesive backed

GM614

GM631

GM641

Technical Data

October, 2011

Product Description

3M™ Gripping Materials are based on 3M's proprietary micro-replicated technology. 3M gripping materials consist of a high-friction surface developed to enhance grip and reduce slippage. The plain backed versions have a nylon knit backing that provides stretch in the cross-web direction; it would typically be attached to other substrates by sewing. It is ideally suited for applications requiring some stretch, such as work or athletic gloves. The adhesive backed 3M gripping materials have the same high-friction surface with a thin flexible backing laminated with an acrylic pressure sensitive adhesive which is good for low surface energy surfaces. These gripping products are designed to be used alone, or as a two-part mated system. When used alone on a single surface, 3M soft gripping material provides a strong secure grip. When used as a two-part mated system, for example a glove and handle bar, grip strength is maximized. As firmly as 3M gripping material holds, it releases just as easily.

Converting and Application

3M™ Gripping Material GM613, GM630, and GM640

These plain backed products can be shear cut, die-cut, or converted by other applicable methods, and can be sewn to a wide variety of substrates using most commercially available equipment. Excessive thread tension may cause tearing or cutting of the product. Avoid direct contact with heated processing surfaces, in excess of 160°F (71°C), for prolonged periods of time.

3M™ Gripping Material GM614, GM631, and GM641

These pressure sensitive adhesive backed products can be shear cut, die-cut, or converted by other application methods. When used as a handle wrap, material should be wrapped so edges overlap opposite the stress direction. If wrapped handle is to be used in a pushing mode, overlap the wraps from top to bottom. If handle is to be used in pulling mode, overlap wraps from bottom to top. The leading and ending edges of the wrap should be secured with end caps or tape designed for that purpose. Minimum tension should be used to avoid stretching and distortion of the product. Avoid direct contact with heated processing surfaces, in excess of 160°F (71°C), for prolonged periods of time.

3M™ Gripping Material

Typical Physical Properties

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

Typical Properties	3M™ Gripping Material						
	GM613	GM630	GM640	GM614	GM631	GM641	
	Plain backed			Pressure Sensitive Adhesive backed			
	Typical Values			Typical Values			
Gripping Material Product Type	Thermoplastic Elastomer Plain back for sewing			Thermoplastic Elastomer 5 mil acrylic pressure sensitive adhesive			
Carrier Type	Nylon knit			Polyester knit			
Weight - oz/yd ² (g/m ²)	without liner	12.4 (420)			15.45 (524)		
	with liner	n/a			18.29 (620)		
Thickness - mils (mm)	without liner	33 (0.8)			42 (1.07)		
Stem Height - mils (mm)		20 (0.508)			20 (0.508)		
Stems Density (stems/in ²)		3000			3000		
Color	Dark Grey	Dark Grey	Black	Dark Grey	Dark Grey	Black	
Texture	Ultra Soft	Very Soft	Soft	Ultra Soft	Very Soft	Soft	
Hardness - Shore A	15	30	40	15	30	40	
Durability	Low	Medium	High	Low	Medium	High	
Coefficient of Friction ASTMD-1894**:							
dry - kinetic coefficient of friction	2.8	3.3	3.5	2.8	3.3	3.5	
wet - kinetic coefficient of friction	2.6	3.0	3.4	2.6	3.0	3.4	
Taber Abrasion ASTM D3389 (CS-10 500g) 500 revolutions							
Stem damage	90%	75%	3%	90%	75%	3%	
Temperature Range - °F (°C) Optimum Usable	-40 to 160 (-40 to 71)			-40 to 160 (-40 to 71)			

**Coefficient of Friction is a property of the mechanical contact between two mating surfaces, in this case each Material was tested against its mating part. For example 3M™ Gripping Material GM613 was tested against GM614, GM630 against GM631 and GM640 was tested against GM641.

3M™ Gripping Material

Care and Maintenance Instructions

3M™ Gripping Material GM613, GM630, and GM640

Important: Test each application according to appropriate care instructions required for the finished product. The actual life of the 3M gripping material depends on the cleaning method and wear conditions.

- Do not iron
- Do not bleach
- Do not use in a dryer
- Do not dry clean

3M™ Gripping Material GM614, GM631, and GM641

Can be hand washed with mild detergent in cool to warm water.
Surface contamination – lint or other debris – can be easily removed with a Scotch® Lint Roller and Scotch® Lint Sheets, or other lint removing mechanisms.

Product Availability

3M™ Gripping Material are available in the following widths and roll lengths on 3 inch cores:

	3M™ Gripping Material	
	GM613, GM630, GM640	GM614, GM631, GM641
Roll Width:	24 inches (60.96 cm)	1 inch (2.5 cm), or 24 inches (60.96 cm)
Roll Length:	Variable	72 yards (65.8 m)

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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ISO 9001:2008

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2008 standards.



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Printed in U.S.A.
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