Gripping Material Trial Bags

Adhesive backed

TB400 Firm
TB731 Firm/clear
TB614 Ultra Soft
TB631 Very Soft
TB641 Soft

Technical Data **October, 2011**

Product Description

3M™ Gripping Materials are based on 3M's proprietary micro- replicated technology. 3M Gripping Materials consists of a high-friction surface developed to enhance grip and reduce slippage. These adhesive backed Gripping Materials utilize this 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.

These Trial Bags are meant for sampling and setting up prototypes. These same materials can be purchased in larger quantities with the "GM" designation.

Converting and Application

3M™ Gripping Material TB400, TB731, TB614, TB631, and TB641
These Trail Bags are designed to give you enough product for testing and prototyping your application ideas.

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.

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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.

		3M™ Gripping Material				
Trial Bag Number		**TB400**	**TB731**	**TB614**	**TB631**	**TB641**
(Corresponding "GM" number)		(GM400)	(GM731)	(GM614)	(GM631)	(GM641)
Typical Properties		**Typical Values**		**Typical Values**		
Gripping Material		Thermoplastic Polyurethane		Thermoplastic Elastomer		
Product Type		5 mil acrylic pressure sensitive adhesive		5 mil acrylic pressure sensitive adhesive		
Carrier Type		Polyester mesh		Polyester knit		
Weight - oz/yd^2 (g/m^2)	without liner	12.9 (440)		15.45 (524)		
	with liner	15.8 (535)		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		Black	Clear	Dark Grey	Dark Grey	Black
Texture		Firm	Firm	Ultra Soft	Very Soft	Soft
Hardness - Shore A		75	75	15	30	40
Durability		Very high	Very high	Low	Medium	High
Coefficient of Friction ASTMD-1894**:						
dry - kinetic coefficient of friction		1.1	1.1	2.8	3.3	3.5
wet - kinetic coefficient of friction		0.98	0.98	2.6	3.0	3.4
Taber Abrasion ASTM D3389 (CS-10 500g) 500 revolutions						
Stem damage		100%	100%	90%	75%	3%
Temperature Range - °F (°C)		-40 to 160 (-40 to 71)		-40 to 160 (-40 to 71)		
Optimum Usable						

**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 TB614, GM630 against TB631 and GM640 was tested against TB641.

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Care and Maintenance Instructions

3M™ Gripping Material TB400, TB731, TB614, TB631, and TB641

The gripping material can be hand washed with mild detergent in cool to warm water once it is affixed to a handle or part.

Surface contamination – lint or other debris – can be easily removed with a Scotch® Lint Roller and Scotch® Lint Sheets, or other lint removing mechanisms.

Do not bleach

Do not iron

Do not use in a dryer

Do not dry clean

Product Availability

		3M™ Gripping Material TB400, TB614, TB631, TB641, TB731
Trial Bag sizes:	2 rolls;	1 inch (2.5 cm) x 15 feet (4.5 m)
	6 sheets;	6 inch (15.2 cm) x 7 inch (17.8 cm)

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.

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ISO 9001:2008

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