3M Gripping Material GM110 • GM400

Technical Data		October, 2009		
Product Description Converting and Application	3M [™] Gripping Material GM110 and GM400 are based on 3M's proprietary micro- replicated technology. 3M gripping material GM110 consists of a high-friction surface with a nylon knit backing that provides stretch in the cross-web directions. It can be attached to other substrates by sewing. 3M gripping material GM110 is ideally suited for applications requiring stretch, such as athletic gloves. 3M gripping material GM400 consists of a high-friction surface with a thin flexible backing and acrylic pressure sensitive adhesive with liner. When used alone on a single surface, 3M gripping material provides a strong secure grip. When used as a two-part system, for example on a glove and a handlebar grip, strength is maximized. As firmly as 3M gripping material holds, it releases just as easily.			
	3MTM Gripping Material GM110 3M TM Gripping Material GM110 plain back 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 TM Gripping Material GM400 3M TM Gripping Material GM400 with pressure sensitive adhesive can be shear cut die-cut, or converted by other application methods. When used as a handle wrap, material should be spiral wrapped so edges are aligned next to each other with minimal gaps. The leading and ending edges of the wrap should be secured with end caps or tap designed for that purpose. Minimum tension should be used to avoid stretching and distortion of the product. Avoide direct direct contact with heated processing surfaces, in excess of 160°F (71°C), for prolonged periods of time.		

3M[™] Gripping Material GM110 • GM400

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		
		GM110	GM400	
Property	Typical Value	Typical Value		
Product Type		Plain back	5 mil acrylic pressure sensitive adhesive	
Weight - oz/yd² (g/m²)	without liner with liner	10.7 (360)	12.9 (440) 15.8 (535)	
Thickness - mils (mm)	without liner with liner	33 (0.8)	33 (0.8) 37 (0.9)	
Color		Black or Off-white	Black	
Carrier Type		Nylon knit	Polyester mesh	
Coefficient of Friction: ¹ 3M microtribometer method ² dry- kinetic coefficient of fric wet - kinetic coefficient of fri		2.7 2.3	3.0 3.0	
Abrasion Resistance: ASTM D3389 (H18, 500 g) we through – revolutions weigh rate ³ – mg/revolution		> 6000 0.05	> 6000 0.05	
Puncture Resistance: modified ASTM D4833 - lb (N)		13.5 (60)	7.6 (34)	
Colorfastness to UV: (AATCC gra ASTM G-155 method 1, 1000	ayscale) hours	4 (Black)	_	
Tensile Strength: M ASTM D5035 - Ib/in (N/cm) C		82 (140) 22 (38)	19 (33 18 (32)	
Force Required to Stretch 20%: CD* 5 cycle avg. @ 12"/min - Ib/in (N/cm)		3.8 (6.7) 100% recovery		
Tear Resistance: MD* ASTM D5734 - Ib (N) CD*		1.7 (8)	3.3 (15) 4.4 (20)	
Stiffness:MD*ASTM D5732 - μlb.ft. (μN.m)CD*		32 (44)	109 (119) 140 (153)	
Optimum Usable Temperature Range - °F (°C)**		-40 to 160 (-40 to 71)	-40 to 160 (-40 to 71)	

¹ 3M[™] Gripping Material GM110 vs. GM400.

² Contact area: 0.44 in² (2.8 cm²), contact pressure: 3 lb/in² (21 kPa)

³Weight loss rate at 4000 revolutions.

*MD: machine direction, CD: cross direction.

**Dependent upon process conditions and application.

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Care and
Maintenance
Instructions3M™ Gripping Material GM110
Important: Test each application according
to appropriate care instructions required for
the finished product. Actual life of the
applied 3M gripping material depends on
cleaning method and wear conditions. The
following care label recommendations are
made based on testing to 10 home wash and3M™ Grip
3M™ Grip
material GM110

Wash: Machine wash hot, 60°C (140°F)



Bleach: Do not bleach

3 dry-clean cycles.



Dry: Tumble dry, low heat



Iron: Do not iron



Dry-clean: Dry-clean normal cycle



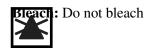
Surface contamination – lint or other debris – can be easily removed with a Scotch[®] Lint Roller and Scotch[®] Lint Sheets, or other lint removing mechanisms.

3MTM Gripping Material GM400

3M[™] Gripping Material GM400 can be rinsed off in cold water or wiped with a damp rag and can be air dried. Surface contamination – lint or other debris – can be easily removed with a Scotch[®] Lint Roller and Scotch[®] Lint Sheets, or other lint removing mechanisms.

Wash: Not Machine Washable







Dry: Line or drip dry



Iron: Do not iron



Dry-clean: Do not dry-clean



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Product Availability	3M TM Gripping Material GM110 and GM400 are available in the following widths and roll lengths on 3 inch cores:				
		3M™ Gripp GM110	3M™ Gripping Material GM110 GM400		
	Roll Width:	10.25 inches (26 cm)	1 inch (2.5 cm) 10.25 inches (26 cm)		
	Roll Length:	Variable	72 yds (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.				
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This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



Industrial Adhesives and Tapes Division 3M Center Building 225-38-06

3M Center, Building 225-3S-06 St. Paul, MN 55144-1000 800-362-3550 • 877-369-2923 (Fax) www.3M.com/industrial



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