

# TUF REPAIR & BUILD-UP MATERIALS

Formulated and manufactured by Freeman, TUF and Master are complete lines of quality polyester repair & build-up materials. TUF materials bond to most any surface, and are sandable in 15 minutes. When fully cured, TUF materials exhibit good wear resistance and chemical resistance. Our Master line offers thicker viscosities for ease of application on vertical walls. Available in a range of colors, they are designed to be compatible with Pine, Jelutong, and Mahogany lumbers. We also offer specialty formulations designed for repairing metal, laminate tooling, high temperature tooling, and polyurethane and epoxy tooling boards.



# DID YOU KNOW?

# We offer instructional videos online!

Our Video Library is available on our website, **www.FreemanSupply.com**, or on our YouTube channel **@freemanmfg**. We feature over three hours of instructional and product videos, offering the most comprehensive free resource for the making of parts, patterns, tools and molds. We also have all our videos available for purchase on **eBay**! Start watching today!



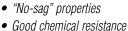
# FREEMAN TUF® REPAIR & BUILD-UP MATERIALS

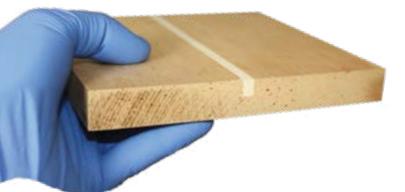


# **Ouick Facts**

Formulated and manufactured by Freeman, TUF is a complete line of quality polyester repair & build-up materials which features:

- Fast setting sandable in 15 minutes
- Low shrinkage
- Good wear resistance and bonds to most surfaces





# **TUF-Fil®**

Freeman TUF-Fil closely matches mahogany and other hardwoods in hardness. Suitable for high-wear applications, it may be scraped, filed, tapped and sanded when fully cured. While it is still rubbery, it is carvable using woodworking tools. TUF-Fil Gray (Aluminum) makes a great repair material for gray fixture boards. Hardener included.

SKU	Size	Color	Net weight (lb.)
053405	Quart	Mahogany	2.8
053410	Quart	Pine	2.8
053415	Quart	Gray (Aluminum)	2.8
053425	Gallon	Mahogany	11.5
053430	Gallon	Pine	11.5
053435	Gallon	Gray (Aluminum)	11.5
053428	3 Gallon Cartridge	Mahogany	31.5
053433	3 Gallon Cartridge	Pine	31.5
053437	3 Gallon Cartridge	Gray (Aluminum)	31.5

# **TUF-Fil® White**

TUF-Fil White is the hardest, strongest and most dense of the TUF line of products. Excellent for repairing composite laminate tooling. Hardener included.

SKU	Size	Color	Net weight (lb.)
053420	Quart	White	3.8
053440	Gallon	White	12.5
053438	3 Gallon Cartridge	White	31.5

# **Hi-Temp TUF-Fil®**

Hi-Temp TUF-Fil is ideal for the repair, build-up or alteration of tooling that will be subjected to operating temperatures up to 350°F. It features very good adhesion when used on composite tooling, metal, RenShape 5008, RenShape 5065, and wood materials. Hardener included.

SKU	Size	Color	Net weight (lb.)
053451	Quart	Dark Gray	2.5
053452	Gallon	Dark Gray	10
053453	3 Gallon Cartridge	Dark Gray	30

# **Specifications**

	Mix Ratio (by une )	Gel Time (Ma	Hardness (Shore DS	Viscosity (cne)	Density (a/ro)	Colors Available
TUF-Fil	100:1.5	11	81	912,000	1.74	Mahogany, Pine, Gray
TUF-Fil White	100:1.5	9	95	400,000	2.50	White
Hi-Temp TUF-Fil	100:2.0	9	82	830,000	1.68	Dark Gray
TUF-Carv	100:1.5	10	71	581,000	1.14	Mahogany, Pine, White
Quik-Fil	100:1.5	11	70	208,000	0.89	Brown
ASTM	-	D-2471	D-2240	D-2393	D-792	_

# **TUF-Carv®**

Freeman TUF-Carv Repair & Build-Up Material is a less dense material than TUF-Fil, closely matching the hardness of pine and jelutong. It is ideal for any job that requires a durable, yet carvable finish. TUF-Carv, when cured, can be carved, sawed, sanded, filed, tapped and machined easily with woodworking tools. Hardener included.

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SKU	Size	Color	Net weight (lb.)
053205	Quart	Mahogany	1.8
053210	Quart	Pine	1.8
053215	Gallon	Mahogany	7
053220	Gallon	Pine	7
053225	3 Gallon Cartridge	Mahogany	21
053230	3 Gallon Cartridge	Pine	21

# **Ouik-Fil**

Quik-Fil is a modeling board repair paste designed specifically for the repair, build-up and forming of fillets on medium-density modeling boards. It is similar in hardness to most 30-40 lb. density boards and colored brown to match the most popular class of modeling boards. Quik-Fil also features excellent bonding properties with very little sag. Hardener included.

SKU	Size	Color	Net weight (lb.)
053441	Quart	Quik-Fil Brown	1.1

# **Cream Hardener**

This premium quality white catalyst is designed for use with all of the TUF Products. This product may also be used to catalyze other manufacturers' polyester filler products. The bright white color does not significantly change the color of the basic resin.

SKU	Size	Color	Net weight (lb.)
053445	1 oz. Tube	White	0.1
053450	4 oz. Tube	White	0.3

# **MASTER REPAIR & BUILD-UP MATERIALS**



# **Quick Facts**

Our Master line features high-quality, two-component polyester repair materials that offer:

- Thicker viscosities for ease of application on vertical walls
- Durable surfaces for excellent wear resistance
- Fast setting sand or machine in 15 minutes
- Good chemical and water resistance, bonds well to most substrates

# Master<sup>®</sup> Ouick-Bild II

Our most popular Master repair formulation offers a thick viscosity for excellent sag resistance on vertical walls, 85 Shore D hardness for superior wear resistance, and different-colored hardeners. This two-component, quick setting material hardens in 15 minutes, creating a durable repair to metal, plastic, and wood. Hardeners sold separately.

SKU	Size	Net weight (lb.)
053890	1 Quart (Resin Only)	3.5
053895	1 Gallon (Resin Only)	13.3
053815	Black Cream Hardener (For Quarts)	1 oz.
053825	Mahogany Cream Hardener (For Quarts)	1 oz.
053835	Pine Cream Hardener (For Quarts)	1 oz.
053445	White TUF Cream Hardener (For Quarts)	1 oz.
053820	Black Cream Hardener (For Gallons)	4 oz.
053830	Mahogany Cream Hardener (For Gallons)	4 oz.
053840	Pine Cream Hardener (For Gallons)	4 oz.
053450	White TUF Cream Hardener (For Gallons)	4 oz.

# **Specifications**

	Mix Ratio (by MA	Gel Time (Miss)	Hardness (Shore D)	Viscosity (cne)	Density (c.c.	Colors Available	
Quick-Bild II	100:1.5	9	85	1,380,000	1.65	Mahogany, Pine, Black, White	
Quick-Carve	100:1.5	10	69	400,000	1.13	Mahogany	
Quick-Bild P80	100:1.5	10	70	580,000	1.13	Pine	
ASTM	_	D-2471	D-2240	D-2393	D-792	_	

# Master<sup>®</sup> Quick-Carve

SKU Size Net weight (lb.) Master Quick-Carve is a two-053910 1 Quart 1.8 component polyester repair material that features good durability yet is easily carved or sanded when extensive hand finishing is required. Quick-Carve is excellent

for fast repairs to wood patterns and is available as a mahogany-colored resin with included hardener.

# Master<sup>®</sup> Ouick-Bild P80

This is the most economical polyester repair material in the

SKU	Size	Net weight (lb.)
053905	1 Gallon	7

Master line for larger and more frequent repairs. This two-component resin system solidifies in 15 minutes and features a 70 Shore D hardness for good durability. Its creamy consistency for ease of application and good sag resistance on vertical surfaces complements the pine resin color to match many of the softer woods used for patterns and models. Hardener included.

# **GENERAL PURPOSE REPAIR MATERIALS**

# **POLYESTER-BASED REPAIR MATERIALS**

# Plas-Fil

This is an excellent compound	SKU	Size	Net weight (lb.)
for repairing defects in metal,	412515	Gallon	7.8
			 (0)(1)

fiberglass, and wood. Using the included red cream hardener (SKU **#053507)** as the catalyst, this paste material will solidify in approximately 15 minutes and is able to be sanded to a smooth, durable finish.

# **Dynalite**<sup>™</sup>

Lightweight, carvable,	SKU	Size	Net weight (lb.)
sandable, and economically-	053502	Gallon	7.5
priced, this polyester repair	053507	Tube Hardener	4 oz.

material is a useful material for a wide range of tooling alterations and repair. Includes red hardener (SKU #0053501).

# Platinum Polvester Repair Material

This lightweight,	SKU	Size	Net weight (lb.)
high-quality polyester	053508	3-Gallon Cartridges (2)	21.6
filler compound adheres aggressively to steel, galvanized steel,			
and aluminum. Its smooth, creamy texture makes it easy to apply.			
Includes blue hardener (SKU #053499).			

#### USC Base Coat/Clear Coat™ This polyester filler provides **SKU**

Mfg. No. Net weight (lb.) 16060B 8.8

a smooth, self-leveling 053510 Gallon surface for high-quality repair projects and extra adhesion to galvanized, zinc-treated, and aluminum surfaces. Includes raspberry cream hardener.

Size

# **Fillet Shapers**

Made of high quality spring steel, this set of four fillet tools is ideal for creating fillets from any TUF product or any paste repair material. Each tool is  $5^{3}/4^{"}$  long and is ground to a smooth radius. Radius sizes are 1/16", 1/8", 3/16", 1/4", 5/16", 3/8", and 1/2". (SKU #046375, set of 4)



# **LOCATIONS**

# Branch Locations and Public Warehouses

Freeman has strategically placed satellite locations across North America with customer service representatives ready to help. Thousands of products are stocked at these locations as well as public warehouses to reduce your shipping costs.

# **Strategic & Effective Stocking**

Freeman's inventory staff constantly monitors sales and stocking data across the country to properly provide the right amount of products at each location.

# **Worldwide Shipping**

Freeman ships orders all across the globe and has various international distributors available to supply customers with top-quality products.

# OHIO (HEADQUARTERS)

1101 Moore Road Avon, OH 44011 TEL 800-321-8511 TEL 440-934-1902 FAX 440-934-7200

# CALIFORNIA

5525 S. Soto Drive Vernon, CA 90058 TEL 800-325-2100 FAX 440-934-7200

# GEORGIA

5060 N Royal Atlanta Dr. #6 Tucker, GA 30084 TEL 770-493-4131 FAX 440-934-7200

# KANSAS

5755 S. Hoover Road Bldg. #5 Wichita, KS 67215 TEL 800-792-1047 FAX 817-568-0908

# MICHIGAN

27655 Groesbeck Highway Roseville, MI 48066 TEL 800-345-9259 TEL 586-774-1210 FAX 586-774-1019

# **NORTH CAROLINA**

101 Bailey Street Mocksville, NC 27028 TEL 800-321-8511 FAX 440-934-7200



# ONTARIO

3600B Laird Road Unit 8 Mississauga, ON L5L 6A7 TEL 800-345-9259 FAX 586-774-1019

#### OREGON

15745 N. Lombard St., Ste. 100 Portland, OR 97203 TEL 800-558-0866 FAX 262-789-5407

# PENNSYLVANIA

203 Enterprise Rd. Lititz, PA 17543 TEL 800-631-4230 TEL 717-653-5300 FAX 717-653-7372

# QUEBEC

3475 boul Pitfield Montreal, QC H4S 1H3 TEL 800-263-7699 TEL 514-335-3530 FAX 514-335-3225

#### **TEXAS**

3152 S.E. Loop 820 Fort Worth, TX 76140 TEL 800-792-1047 TEL 817-551-7301 FAX 817-568-0908

# WISCONSIN

4921 South 2nd St. Milwaukee, WI 53207 TEL 800-558-0866 TEL 262-789-9800 FAX 262-789-5407

# **TERMS & CONDITIONS**

#### **Returned Goods**

To save transportation charges, and facilitate handling of merchandise upon our receipt, we request that no merchandise be returned without prior written authorization.

#### Damaged Goods

Merchandise given to a transportation firm is their responsibility to deliver in satisfactory condition. If merchandise is delivered damaged, the customer should note as such on freight bill and file a claim with the delivering carrier. Regulations require that hidden damage, identified upon unpacking, must be reported within ten (10) days of delivery in order to file a proper claim.

#### Liability/Warranty Statement

Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, expressed or implied, including any warranty or merchantability or fitness, nor is protection from any law of patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental, or consequential damages.

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