

# FREEDOM<sup>®</sup>

Chemical Corporation

## FREEDOMTUFF<sup>®</sup> PRODUCT INFORMATION BULLETIN

**FREEDOMTUFF<sup>®</sup> 9390** is a next generation 100 % solids flexible, fast cure, two-part room temperature cured polyurethane adhesive with high peel and shear strength. FT-9390 works great on concrete, metal, and wood substrates.

### ADVANTAGES

- ✦ High Solids, <100 g/L VOC
- ✦ High bond strength
- ✦ Meets USDA criteria
- ✦ No noxious odors
- ✦ USGBC LEED, EQ Credit 4.2 AND 4.3: Low-emitting VOC Compliant Materials

### RECOMMENDED USES

- ✦ Tile adhesive
- ✦ Polyurea repair
- ✦ Wood glue
- ✦ Construction adhesive

### PROFESSIONAL USE ONLY

Read and understand all the information contained in the Product Information Bulletin's, SDS's and product labels prior to starting any project. Nothing contained in any of Freedom<sup>®</sup> Chemical Corporation's materials relieves the end user of the obligation to read and follow the warnings and instructions for each of Freedom<sup>®</sup> Chemical Corporation's products.

### SURFACE PREPARATION

For high strength structural bonds, paint, oxide films, oils, dust, mold release agents and all other surface contaminants must be completely removed. However, the amount of surface preparation directly depends on the required bond strength and the environmental aging resistance desired by user. The following cleaning methods are suggested for common surfaces. Steel or Aluminum (Mechanical Abrasion) 1. Wipe free of dust with oil-free solvent such as acetone or alcohol solvents.\* 2. Sandblast or abrade using clean fine grit abrasives (180 grit or finer). 3. Wipe again with solvents to remove loose particles. 4. If a primer is used, it should be applied within 4 hours after surface preparation. \*When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use. Use solvents in accordance with local regulations.

### PACKAGING 1:1 RATIO

200, 600 ml side by side cartridges

### COLOR

Natural

### HANDLING/CURING

For high strength structural bonds, paint, oxide films, oils, dust, mold release agents and all other surface contaminants must be completely removed. However, the amount of surface preparation directly depends on the required bond strength and the environmental aging resistance desired by user. For suggested surface preparations of common substrates, see the following section on surface preparation.

For maximum bond strength, apply product evenly to both surfaces to be joined.

Application to the substrates should be made within 90 minutes. Larger quantities and/or higher temperatures will reduce this working time.

Join the adhesive coated surfaces and allow to cure at 60°F (16°C) or above until firm. Heat, up to 200°F (93°C), will speed curing.

Keep parts from moving until handling strength is reached. Contact pressure is necessary. Maximum shear strength is obtained with a 3-5 mil bond line. Maximum peel strength is obtained with a 17-25 mil bond line.

Excess uncured adhesive can be cleaned up with ketone type solvents.\* Adhesive Coverage: A 0.005 in. thick bondline will typically yield a coverage of 320 sq. ft/gallon

### APPLICATION

For optimum results proceed with application while air and substrate temperatures are between 40° F (4.44° C) and 95° F (35° C). Insure that the outside temperature is at least 6° (-14.44) above the dew point and rising, start application while the outside temperature is descending.

### SPECIFICATION AND FIELD ASSISTANCE

Contact Freedom Chemical<sup>®</sup> Corporation for assistance.

Jobsite visits by Freedom Chemical<sup>®</sup> Corporation's employees or its independent agents are solely for determining qualification for warranty.

### DISPOSAL

All spilled material, unused contents, empty containers and secondary containment spills/leaks must be cleaned up and disposed of in accordance with local, state and federal regulations.

### STORAGE

FreedomTuff<sup>®</sup> 9390 has a shelf life of 1 year from the date of manufacture, in factory-sealed containers.

Avoid freezing temperatures.

Rotate stock regularly.

Do not open until ready to use and keep containers sealed tightly.

### LIMITATIONS

The end user should check the suitability of this product prior to its application.

Freedom Chemical<sup>®</sup> Corporation assumes no liability for substrate defects.

TESTING

Substrate adhesion test should be performed seven days after application. All testing should be performed by a qualified testing agency. Freedom® Chemical Corporation is not responsible for testing.

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High/Low temperatures and humidity can significantly gel time and extend the cure time.

TESTING

**FREEDOMTUFF® 9390 TYPICAL PROPERTIES**

MIX RATIO BY VOLUME	N/A	1A:1B
GEL TIME	N/A	80 – 100 SEC
TACK TIME	N/A	120 – 150 SEC
SHORE D HARDNESS	ASTM D-2240	65 D
TIME TO HANDLE	N/A	5 - 7 MIN

AHDESION – ASTM D-4541	TIME	PSI	- FAILURE MODE
WOOD BLOCK	5 MIN	225	- SUBSTRIGHT FAILURE
CONCRETE PAVER	5 MIN	100	- ADHESIVE FAILURE
	15 MIN	300	- SUBSTRIGHT FAILURE

*Incredible Stuff, Exceptional Service, and Friendly People™*

Read all the information in this product information bulletin, and material safety data sheet (MSDS) before applying any material. The information contained herein is for purposes of identifying the product and does not constitute a warranty or guaranty that the product will conform to this description. Product specifications and performance will vary depending on application methodologies, raw materials and other factors. All published information and specifications are subject to change without notification. Technical data shown in product data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors. All recommendations, statements and technical data contained in this data sheet are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind. Satisfactory results depend upon many factors beyond the control of Freedom® Chemical Corporation. User shall rely on their own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from their direct use, indirect use or consequential to their use of the product. Freedom® Chemical Corporation shall not be liable to the buyer or any third party for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. Products manufactured by Freedom® Chemical Corporation are free of defects for a period of one (1) year, liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the materials in question. † Freedom® Chemical and FreedomTuff® are trademarks registered in the US Patent and Trademark Office. † The marks of Freedom® Chemical Corporation, its divisions, slogans, emblems, other marks appearing in this document are the trademarks and/or service marks of Freedom® Chemical Corporation, its subsidiaries, affiliates or licensors Copyright© January 2019 Freedom® Chemical Corporation. All Rights Reserved.