



Technical Data Sheet

3M™ Industrial Adhesive 4550

Product Features

- 3M™ Industrial Adhesive 4550 is a sprayable, synthetic elastomer based adhesive for bonding many lightweight materials such as felt, cork, cardboard, and paper to metal and other substrates.
- Ideal for palletizing “all-plastic” shipping bags. Holds bags in place during storage and shipment. When unstacking, bags separate easily with no bag tearing.
- Fast tacking; ideal for low pressure spraying with minimal misting and cobwebbing. Offers high coverage and long bonding range.

Technical Information Note

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

Typical Uncured Physical Properties

Attribute Name	Value
Net Weight	6.4 — 6.6 lb/gal
Base	SBR

Typical Physical Properties

Attribute Name	Temperature	Value
Color		Translucent
Solids Content by Weight		36 — 38 %
Flash Point		-29 °C (-20 °F) ¹
Viscosity	27 °C (80 °F)	100-4,000 cP ²

¹ TCC

² Brookfield Viscometer RVF #4 sp. @ 20 rpm

Typical Performance Characteristics

Substrate: Cotton Duck to Galvanized Steel

Temperature: 49 °C (120 °F)

Dwell Time: 72 h

Attribute Name	Value
180° Peel Adhesion	192 oz/in ¹

¹ 180° peel strength of cotton duck to galvanized steel bonds. The bonds were made by applying the adhesive to both surfaces, joining the surfaces. Scott Tensile Tester (2 in/min). 24 hr @ Room Temperature and 48 hr @ 120°F(49°C)

Handling/Application Information

Directions for Use

Palletizing Plastic Bags

1. Application: Spray a uniform line of adhesive down center of bag. Bags can be palletized immediately or within 5 minutes depending upon temperature, humidity and air movement. Best results are obtained if the bags are palletized when the adhesive is aggressively tacky.
2. Drying Time: Palletized bags may be handled immediately. Strength of bond increases over a period of 24 hours.

General Bonding

1. Surface Preparation: Surfaces must be clean, dry and dust free. Wiping with a solvent such as methyl ethyl ketone (MEK)* will aid in removing oil and dirt.
2. Application Temperature: For best results, the temperature of the adhesive and the surfaces being bonded should be at least 65°F (18°C).
3. Application: Stir or agitate well before using.

Porous Surface(s): Brush, spray, flow or roll a uniform coat on the least porous surface to be bonded. Bond immediately, applying pressure to ensure contact.

Non-Porous Surface(s) (or for higher immediate strength): Apply a uniform light coat on each surface. Allow the adhesive to dry until it is tacky. Then apply sufficient pressure to ensure intimate contact.

4. Cleanup: Excess adhesive may be removed with a solvent such as 3M™ Scotch-Weld™ Solvent No. 2.*

*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow manufacturer's precautions and directions for use.

Application Equipment

Note: Appropriate application equipment can enhance adhesive performance. We suggest the following application equipment for the user's evaluation in light of the user's particular purpose and method of application.

1. Pumping:

A 2:1 divorced design pump is suggested. All material hoses should be nylon or PVA lined. Packings and glands, in contact with the adhesive, should be PTFE.

2. Spray:

Production Type Spray Equipment

Spray Applicator	Air Cap	Fluid Tip	Air Pressure	Approximate Air Requirement*	Fluid Flow**
DeVibiss JGA	45	FF	25 psi	3 CFM	6-15 fl. oz./min.
Binks No. 95 or 2001	66S	63C	25 psi	3 CFM	6-15 fl. oz./min.
Flow Volume Spray Equipment					
DeVibiss MSA	944	F	25 psi		6-15 fl. oz./min.
Binks No. 370A	85F	85	25 psi		6-15 fl. oz./min.

*3/4 H.P. Compressor for intermittent use. (1/3 H.P. for low volume) 1 H.P. Compressor continuous use. (1/3 H.P. for low volume)

**To Measure Fluid Flow: Pressurize fluid source only; pull trigger, flow material into measuring device for 60 seconds, increase or decrease fluid source pressure to obtain desired fluid flow.

3. Brush/Roller:

Typical brushes/rollers designed for oil based paint may be used.

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original, unopened packaging, out of direct sunlight. Lower temperatures cause increased viscosity of a temporary nature. For best performance, use this product within 18 months from date of manufacture.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577

Automotive Disclaimer

Select Automotive Applications:

This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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