

Technical data sheet



Product: 9460, 9469, 9473

Manufacturer: 3M DEUTSCHLAND GMBH

Product group: KLEBEBAND

Article group: DOPPELSEITIG

Download: 28.04.2024

3M VHB (F)9460PC,(F)9469PC/FL,(F)9473PC

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Adhesive Transfer Tapes with High Performance Acrylic Adhesive 100MP F9460PC • F9469PC • F9473PC • 9460PC • 9469PC • 9473PC • 9469FL

Product Data Sheet

Date: September 2022

Supersedes: July 2018

Product Description

3M™ VHB™ Adhesive Transfer Tapes F9460PC, 9460PC, F9469PC, 9469PC, 9469FL, F9473PC and 9473PC utilize the 3M™ High Performance Acrylic Adhesive 100MP, which has good long term holding power.

Key Features

- For interior and exterior industrial applications to replace rivets, spot welds and other permanent fasteners.
- 3M™ VHB™ Adhesive Transfer Tapes are transparent

Physical Properties

Products	F9460PC 9460PC	F9469PC 9469PC	F9473PC 9473PC
Adhesive thickness*	0,050 mm	0,125 mm	0,250 mm
Liner thickness *	0,100 mm		
Liner weight	100 g/sqm		
Liner material	Polycoated paper, brown		
Liner printing	Versions with "F" prefix have liner printing Versions without "F" have no printing		
Adhesive colour	transparent		

*AFERA 5006

Products	9469FL
Adhesive thickness*	0,125 mm
Liner thickness *	0,100 mm
Liner weight	100 g/sqm
Liner material	Polypropylene, unprinted
Adhesive colour	transparent

Performance Characteristics

Products	F9460PC 9460PC	F9469PC 9469PC 9469FL	F9473PC 9473PC
Adhesion to Stainless Steel (FTM2 - after 72 h RT using 50 µm aluminium foil)	12,0 N/cm	19,5 N/cm	19,5 N/cm
Adhesion to PET (FTM2 - after 72 h RT using 50 µm aluminium foil)	8,7 N/cm	11,1 N/cm	12,4 N/cm
Static Shear (FTM8 - 1000 g/25 mm* 12,5 mm on stainless steel, 150 °C)	> 10,000 Minutes		

Immersion 7 days in Engine oil at 50 °C	No changes in appearance
Immersion 7 days in 5 % salt water	No changes in appearance
7 days high humidity chamber 38 °C, 100 RH	No changes in appearance
7 days automotive cycle 4 h -40 °C, 4 h 90 °C, 16 h 38 °C, 100 % RH	No changes in appearance
Storage 4 h at 260 °C	No changes in appearance
Immersion 1 h in Gasoline	No changes in appearance
Immersion 1 h 5 % H₂SO₄	No changes in appearance Slight adhesión loss 1 mm at edges
Immersion 1 h 5 % NaOH	No changes in appearance Slight adhesión loss 1 mm at edges

These 3M™ VHB™ Adhesive Transfer Tapes are made from the same adhesive system and are thermoplastic in nature, becoming softer as temperature increases and firmer as temperature decreases. As the adhesive becomes firmer, the adhesion performance generally increases. At low temperatures (lower than -40 °C, the 3M™ VHB™ Adhesive Transfer Tapes become very firm and glassy; the ability to absorb impact energy is reduced.

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength. To obtain optimum adhesion, the bonding surfaces must be clean, dry, and well unified. Some typical surface cleaning solvents are isopropyl alcohol/water mixture or heptane. *

Ideal tape application temperature range is 21 °C to 38 °C. Initial tape application to surfaces at temperatures below 10 °C is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

***Note:** Be sure to follow the manufacturer's precautions and directions for use when using solvents.

Storage & Shelf Life	Store at 16 °C – 25 °C and 40-65 % relative humidity in its original box. The product can be stored up to 18 months after production.
Recognition / Certification	UL-Recognised in File MH17478
Precautionary Information	<p>TSCA: These products are defined as articles under the Toxic Substances Certification Control Act and therefore, are exempt from inventory listing requirements.</p> <p>MSDS: These products are not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, the products should not present a health and safety hazard. However, use or processing of the products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.</p>
For Additional Information	<p>To request additional product information or to arrange for sales assistance, call.....</p> <p>Address correspondence to: 3M</p>
Automotive Disclaimer	<p>Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M's Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer's use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.</p> <p>NOTWITHSTANDING ANY OTHER STATEMENT TO THE CONTRARY, 3M MAKES NO REPRESENTATIONS, WARRANTIES OR CONDITIONS WHATSOEVER, EXPRESS OR IMPLIED, REGARDING THE PRODUCT IF USED IN AN</p>

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