



VHB™ GPH Series

Product Data Sheet

August 2016
Supersedes: July 2016

Product Description 3M™ VHB™ GPH Series, a general purpose, high temperature, grey conformable double coated acrylic foam tape with a high initial tack and a soft foam. Available in three different thicknesses with a 3M branded red siliconised polyethylene film.

- Key Features**
- Double coated acrylic foam tape
 - 100% closed cell acrylic foam
 - High temperature performance (short term 230°C)
 - Good balance of high temperature and peel & shear performance
 - High initial tack
 - Soft foam enables stress relaxation & an easy application
 - Good sealing properties
 - For indoor and outdoor applications

- Applications & Benefits**
- Its temperature performance enables bonding of materials in applications with high operating temperatures such as prior to processing in a powder coating line
 - Capability to bond to a variety of substrates makes it a good fit for multi material bonding - those substrates have a high or medium surface energy including many metals (e.g. stainless steel) and plastics (e.g. Polyamide, PMMA, ABS)
 - For applications in metal working, signage, appliances and specialty vehicle

Physical Properties

	GPH-060GF	GPH-110GF	GPH-160GF
Adhesive Type	Acrylic foam adhesive		
Thickness acc. to ASTM D-3652	0.60 mm	1.10 mm	1.60 mm
Foam Density	710 kg/m ³		
Release Liner	3M branded red siliconised polyethylene film liner		
Tape Colour	Grey		

Performance Characteristics

Type	GPH-110GF
90° Peel adhesion to Stainless Steel acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	39 N/cm
90° Peel adhesion to Polyamide 6 acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	48 N/cm
90° Peel adhesion to ABS acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	33 N/cm
90° Peel adhesion to PMMA acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	34 N/cm

Performance Characteristics

Type	GPH-060GF	GPH-110GF	GPH-160GF
Dynamic Shear acc. to ASTM D1002 on stainless steel, after 72h @ RT dwell	559 N/ 6.54 cm ²	476 N/ 6.54 cm ²	387 N/ 6.54 cm ²
Static Shear Strength acc. to ASTM D3654, after 72h @ RT dwell (Weight held for 10.000 minutes to stainless steel, 3.32cm ² (0.5in ²))	23°C - 1000 g 150°C - 500 g		
Normal Tensile (T-Block) acc. to ASTM D897 to Aluminium @ RT, after 72h @ RT dwell, 6.45 cm ² , test speed 50 mm/min	399 N/ 6.54 cm ²	438 N/ 6.54 cm ²	454 N/ 6.54 cm ²
Temperature Performance	Short term (minutes, hours): 230°C Long term (days, weeks): 150°C		

Application Temperature

Ideal application temperature range is 21 °C to 38 °C. Pressure sensitive adhesives use viscous flow to achieve substrate contact area. To obtain good performance with all 3M™ VHB™ Tapes, it is important to ensure that the surfaces are clean, dry and free of condensed moisture.

Shelf Life

24 months from date of production when stored at 16°C – 25°C and 40-65 % relative humidity. Performance of tapes is not projected to change even after shelf life expires; however, 3M does suggest that 3M™ VHB™ Tapes are used prior to the shelf life date whenever possible.

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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications.

This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

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