

# 3M<sup>™</sup> VHB<sup>™</sup> GPH Series

## Product Data Sheet

September 2022  
Supersedes: September 2018

**Product Description** 3M<sup>™</sup> VHB<sup>™</sup> 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 liner.

- 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
<b>Adhesive Type</b>	Acrylic foam adhesive		
<b>Thickness</b> acc. to ASTM D-3652	0.60 mm	1.10 mm	1.60 mm
<b>Foam Density</b>	710 kg/m <sup>3</sup>		
<b>Release Liner</b>	3M branded red siliconised polyethylene film		
<b>Tape Colour</b>	Grey		

**Performance Characteristics**

Type	GPH-060GF	GPH-110GF	GPH-160GF
<b>90 ° Peel adhesion to Stainless Steel</b> acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	25 N/cm	37 N/cm	34 N/cm
<b>90 ° Peel adhesion to PA6</b> acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	33 N/cm	48 N/cm	55 N/cm
<b>90 ° Peel adhesion to ABS</b> acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	21 N/cm	33 N/cm	32 N/cm
<b>90 ° Peel adhesion to PMMA</b> acc. to ASTM D3330, 90° peel angle @ RT, after 72h @ RT dwell	21 N/cm	34 N/cm	37 N/cm
<b>Dynamic Shear</b> acc. to ASTM D1002 on stainless steel, after 72h @ RT dwell	547 N/6.54 cm <sup>2</sup>	476 N/6.54 cm <sup>2</sup>	375 N/6.54 cm <sup>2</sup>
<b>Static Shear Strength</b> acc. to ASTM D3654, after 72h @ RT dwell (Weight held for 10.000 minutes to stainless steel, 3.32cm <sup>2</sup> (0.5in <sup>2</sup> ))	23 °C - 1000 g 150 °C - 500 g		
<b>Normal Tensile (T-Block)</b> acc. to ASTM D897 to Aluminium @ RT, after 72h @ RT dwell, 6.45 cm <sup>2</sup> , test speed 50 mm/min	410 N/6.54 cm <sup>2</sup>	439 N/6.54 cm <sup>2</sup>	470 N/6.54 cm <sup>2</sup>
<b>Temperature Performance</b>	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.

**Low Temperature Application:**

3M™ VHB™ GPH Tape be applied at 10 °C and down to 5 °C when using 3M Adhesion Promoter AP111 or Primer 94

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.

**Automotive  
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