

Number of Components:	Two	Minimum Bond Line Cure Schedule*:	
Mix Ratio By Weight:	1:1	150°C	10 Minutes
Specific Gravity:		120°C	20 Minutes
Part A	2.51	100°C	60 Minutes
Part B	3.56		
Pot Life:	36 Hours		
Shelf Life:	One year at room temperature		

Note: Container(s) should be kept closed when not in use. For filled systems, mix contents of each container (A & B) thoroughly before mixing the two together. *Please see Applications Note available on our website.

Product Description:

EPO-TEK[®] H20F is a two component, flexible silver epoxy. It was designed for flexible type circuitry, such as switching circuits in a flexible panel system, as well as large die-attach or substrate attach.

EPO-TEK[®] H20F Advantages & Application Notes:

- Flexible alternative to EPO-TEK[®] H20E, designed to offer lower stress, less cracking, and more flexibility.
- Rheology provides a very soft, smooth, thixotropic paste. No solvents are present.
- A film suitable for Kapton or Mylar can be flexed 180 degrees and creased without de-lamination or loss of conductivity; can be used instead of conductive silicone RTVs.
- Can be applied by screen printing, stamping, roller coating techniques; or hand applied.
- Recommended for fiber-optic packaging. Also suggested for bonding SAW devices, as a low stress adhesive. Applications or end-use could be speaker or microphone circuit related.
- Hybrid level die attach epoxy capable of resisting wire bonding operations. Also, lid sealing operations will not affect bonded chips in the package.
- Suggested as a low stress conductive adhesive for large die sizes, as well as oversized components or substrates.

Typical Properties: (To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: 150°C/1 hour; * denotes test on lot acceptance basis)

Physical Properties:	
*Color: Part A: Silver Part B: Silver	Weight Loss:
*Consistency: Smooth thixotropic paste	@ 200°C: 0.51%
*Viscosity (@ 100 RPM/23°C): 1,500 – 3,000 cPs	@ 250°C: 0.78%
Thixotropic Index: 4.0	@ 300°C: 1.79%
*Glass Transition Temp.(Tg): ≥ 20°C (Dynamic Cure 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min)	Operating Temp:
Coefficient of Thermal Expansion (CTE):	Continuous: - 55°C to 175°C
Below Tg: 10 x 10 ⁻⁶ in/in/°C	Intermittent: - 55°C to 275°C
Above Tg:	Storage Modulus @ 23°C: 21,153 psi
Shore A Hardness: 46	Ions: Cl ⁻
Lap Shear Strength @ 23°C: N/A	Na ⁺
Die Shear Strength @ 23°C: ≥ 2 Kg / 680 psi	NH ₄ ⁺
Degradation Temp. (TGA): 384°C	K ⁺
	*Particle Size: ≤ 45 Microns
Electrical Properties:	
*Volume Resistivity @ 23°C: ≤ 0.0001 Ohm-cm	
Thermal Properties:	
Thermal Conductivity: 4.1 W/mK	

EPOXY TECHNOLOGY, INC.

14 Fortune Drive, Billerica, MA 01821-3972 Phone: 978.667.3805 Fax: 978.663.9782
www.EPOTEK.com

Epoxy and Adhesives for Demanding Applications™

This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product.