

epovex adhesive™

carbon nanotube technology

Epovex Adhesive – Product HK-100P
Product Description – Data Sheet

Zyvex Performance Materials
1255 Kinnear Rd, Columbus, OH 43212
(877) 469-9839 - sales@zyvexpro.com

HK-100P - Zyvex Performance Materials (ZPM) Carbon Nanotube Two-Part Epoxy Adhesive Paste

Description:

HK-100P is a carbon nanotube enhanced two-part epoxy adhesive thixotropic paste.

Used for bonding or filling, HK-100P is ideal for many metals, woods, masonry products, and some plastics and rubbers. HK-100P was also designed to bond Zyvex Performance Material's Arovex composites.

5 mil glass micro-beads are added to control bond-line thickness.

Quantities

HK-100P is commercially available in a variety of two part packaging, including quart (4.4 lbs), gallon (17.6 lbs), five gallon (90 lbs), and drum (900) kits. Cartridge kits are also available in 50ml, 200ml, and 400ml kits.

Qualities:

HK-100P exhibits:

- excellent flexibility
- very high T-peel strengths
- very high tensile shear strengths
- Non-drip, non-sag on vertical surfaces

Mixing Instructions

In separate container, pour proper amounts of Part AP and Part BP (according to chart below) and mix thoroughly.

Typical Uncured Properties

	Part AP	Part BP	Blend
Color	Black	Amber	Black
Mix Ratio (Weight)	1	1	
Mix Ratio (Volume)	1	1	
Pot Life @ 75F, 100 g			40 min
Specific Gravity	1.14	1.09	1.11
Viscosity, cP	Thix Paste	Thix Paste	Thix Paste

Shear Strengths (psi) – Acid Etched 6061 T6 Aluminum

Cure Cycle	Test Temp (F)	Typical Value
2 hrs 176F	75	4400
12 hrs RT + 1 hr 176F	75	4000
3 days RT	75	3700
7 days RT	75	4000
7 days RT	-40	4400
7 days RT	140	3600
7 days RT	180	2900
7 days RT (+7 days water soak)	75	3600
7 days RT (+7 days ethyl alcohol soak)	75	3100
7 days RT (+7 days gasoline soak)	75	3100

Shear Strengths (psi) – Arovex Carbon Fiber Epoxy Prepreg

7 Day RT Cure	Temp (F)	Typical Value
Arovex - Arovex (abraded)	75	3500
Arovex - Arovex (abraded)	140	1750
Arovex - Arovex (abraded) (+7 days water soak)	75	3700
Arovex - Aluminum (abraded)	75	3500
Arovex - Aluminum (abraded)	140	2210

T-Peel Strengths (pli) – Acid Etched 6061 T6 Aluminum

Cure Cycle	Temp (F)	Typical Value
2 hrs 176F	75	35
12 hrs RT + 1 hr 176F	75	35
3 days RT	75	35

ZPM makes no warranty or guarantee, either express or implied, concerning the results of any Epovex Adhesive in a customer's application. All information and technical assistance given by ZPM is also without warranty or guarantee. The customer is responsible for any and all testing to determine if Epovex Adhesive is useful in their application. Applications and processes listed are only suggestions: other applications and processes are possible. All products are sold pursuant to ZPM standard terms and conditions. It is expressly understood and agreed that the customer assumes and releases ZPM from all liability, in tort, contract, or otherwise incurred in connection with the use, results, health & safety effects, handling, and disposal of Epovex Adhesive. Nothing herein shall be construed as a recommendation to use Epovex Adhesive in conflict with any patents or other intellectual property.

