VIKING
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Thorflex E3 2 Part Adhesive

General Description

Viking Thorflex E3 is a clear, non-yellowing fast curing epoxy adhesive. This diverse adhesive can join a huge array of different materials, providing a high strength, water resistant bond. Once cured, this toughened adhesive can be machined, sanded and even painted. The E3 is non-solvent based, yet still provides accelerated cure system, allowing this grade to be the first choice for manufacture and repair applications alike.

Typical Applications

Wind Blade Ancillary Bonding
Automotive Manufacture
Boat Building
Wood Fillers
Sign Manufacture
Furniture manufacture

Packaging

- 25ml Syringe
- 50ml Cartridge
- 400ml Cartridge
- Bulk Dispensing Systems

Shelf Life:

24 months when stored in a cool dry area out of direct sunlight. Do not allow to freeze.

Physical Appearance

Adhesive Part A

Chemical Type	Epoxy Bis A
Appearance	Clear
Specific Gravity	1.2 (approx)
Viscosity @20°C mPa·s	
Brookfield DIVII SP5	15,000 to 30,000
Flash Point	150°C

Activator Part B

Chemical Type	Polymercaptan Hardener
Appearance	Clear
Specific Gravity	1.2 (approx)
Viscosity @20°C mPa·s	
Brookfield DIVII SP5	40,000 to 60,000
Flash Point	100°C

Mixture A&B

Appearance	Clear Non Yellowing
Specific Gravity	1.2 (approx)
Viscosity @20°C mPa·s	
Brookfield Helipath < 4Min	40,000 to 60,000
Mix Ratio By Weight	1:1
Mix Ratio By Volume	1:1
Working Time in Nozzle	3-4 Minutes
Fixture time	5 Minutes

Typical Properties Cured Material

Typical Handling Strength	10-12 Minutes (Light Duty)
Functional Strength @ 20°C	20-30 Minutes
Full Cure Time @ 25°C	48 Hours
Temperature Resistance	-40°C to 80°C
Gap Fill	up to 3mm
Hardness Shore D	60

Typical ASTM D1002 Results after 72 hours @ 25°C

Steel	18-22 N/mm^2
Stainless Steel	10-12 N/mm^2
Aluminium	6-8 N/mm^2
Polycarbonate	5-8 N/mm^2
PVC	5-8 N/mm^2

*Metal Surface Grit-blasted

Example Substrates

Metals
Most Plastics
Ceramics
Wood
Fibreglass
Stone

Terminology

(1) Working/Open Time: The time interval between application of adhesive to substrate, and the possible assembly/repositioning of the two mating parts @ 20°C

2) Fixture Time: The length of time after the substrate assembly that will allow a joint to support a 1kg dead weight. (Tested on a 12mm x 25mm overlapped joint @ 20°C)