



# 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      Boat Building      Sign Manufacture      Furniture manufacture  
Automotive Manufacture      Wood Fillers

## 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 <sup>2</sup>
Stainless Steel	10-12 N/mm <sup>2</sup>
Aluminium	6-8 N/mm <sup>2</sup>
Polycarbonate	5-8 N/mm <sup>2</sup>
PVC	5-8 N/mm <sup>2</sup>

\*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)