



## WINKEL PRO W-B PLASTIC STEEL EPOXY LIQUID

### TECHNICAL DATA

**Product Name:** Winkel Pro W-B Plastic Steel Epoxy Liquid  
**Product Code:** 20053  
**Product Description:** Steel repair epoxy liquid cures at room temperature and is designed for filling, rebuilding and bonding steel or metal surfaces.  
This liquid type system can cast over models for accurate detailed reproduction.

**Features:**

- 1.Low viscosity, self-leveling liquid
- 2.Fix to stainless steel, steel and many other metals, as well as concrete.
- 3.Machine casting to metallic finish.
- 4.100% solids.
- 5.Non-rusting repairs.
- 6.Resistant to chemicals and most acids, bases, solvents and alkalis.

**Product Data:**

The color of Part A (Resin): Steel gray  
The color of Part B (Hardener): Amber  
The mixed color: Steel gray, nearly steel color  
Ratio: 5.6:1 (by volume), 94:6 (by weight)

**Storage condition & Shelf-Life:** 24 months from date of production if stored properly in original unopened, sealed and undamaged packaging in cool and dry conditions at temperatures between +5°C and +25°C. Protect from direct sunlight.

#### Technical Data:

TYPICAL PHYSICAL PROPERTISE	RESULTS	TEST METHOD
Uncured		
% Solids by Volume	100	-
Mixed Viscosity	Liquid	-
Specific Gravity	Resin: 2.5	-
	Hardener: 1	
	Mixed: 2.41	
Working time	25-30 mins (500g, @25°C)	-
Full cure time	24 hours	-
Maximum Operating Temperature	Wet: 49°C, Dry: 150°C	-
Cure 7 days @25°C		
Shear Strength	1113 psi	Ref.ASTM D 1002-10
Tensile Strength	7290 psi	ASTM D638-14 (Type I, V= 5 mm/min.)
Glass Transition Temperature	88.75 (T <sub>g</sub> ) °C	DSC
Flexural Strength	11982 psi	ASTM D790-17 Procedure AI
Comperssive Strength	16415 psi	ASTM D695-15
Hardeness	87 Type D/1 sec	Ref. ASTM D2240-15 <sup>el</sup>
Temperature Lmitations	Continuous: -30 to 150 °C	-
	Intermittent: -30 to 200 °C	

\*\*\* For information only - not for specification purposes.\*\*\*

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**Application Instructions:****1.Surface Preparation**

Steel repair epoxy liquid only be applied to clean, dry and well roughened surfaces.

(1) Remove all loose material and surface contamination and clean with a suitable solvent which leaves no residue on the surface after evaporation such as acetone, MEK, isopropyl alcohol, etc.

(2) If necessary, apply moderate heat to remove ingrained oil and clean again with solvent.

(3) Roughen surface by abrasive blasting, grinding, rotary file or other appropriate means.

**2.Mixing & Application**

Using an appropriate tool, apply the mixed epoxy putty to the prepared surface, pressing firmly to insure intimate contact and eliminate any air pockets at the bond line or within the material.

Some applications such as holed pipes or tanks and cracked casings may require the use of reinforcement tape to bridge the damaged area(s) followed by the application of additional material to completely cover the reinforcement tape.

**3.Cleaning Equipment**

Wipe excess material from tools immediately. Use acetone, MEK, isopropyl alcohol or similar solvent as needed.

\*\*\* Not recommended for long term exposure to concentrated acids or to organic solvents \*\*\*

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**Health and Safety  
Information:**

For information and advice on the safe handling, storage and disposal, users shall refer to MSDS containing physical, ecological, toxicological and other safety-related data.