

ISOBOND SR 1170 White / SD 205x Black Filled Epoxy System for Fillet-joint and Structural Assembling

Description

Isobond is a filled epoxy adhesive system.
Designed for large composite structures.
This system is applicable in thick sections.
Excellent sagging resistance, performing well on vertical substrates.

Use:

- Fillet-joint for assembly of two parts of a structure / joint between hull and bulkhead.
- Bonding onto epoxy or old polyester laminates. Sanding down to the fiber is highly recommended.

Epoxy Resin Isobond SR 1170 White

Aspect		Paste
Color		White
Viscosity (m.Pas)	@ 20 °C	Thixotropic
Density	@ 20 °C	1.10 to 1.20

Hardener Isobond SD 205x Black

Hardeners		ISOBOND SD 2052 B	ISOBOND SD 2055 B
Reactivity type		slow	fast
Colour		Gel black	Gel black
Viscosity	m.Pas	Thixotropic	Thixotropic
Density (g/cm ³)	@ 20 °C	1.04 ± 0.01	1.08 ± 0.01

Mix Isobond SR 1170 W / Isobond SD 205x B

Bonding Systems	SR 1170 W / SD 2052 B	SR 1170 W / SD 2055 B
Mixing ratio by weight	100 g / 50 g or 2 / 1	100 g / 50 g or 2 / 1
Density of mix	0.95 ± 0.01	1.02 ± 0.01
Color (*)	Grey (*)	

(*) Isobond is also available in a Wood color version when used with hardeners SD 407x.

Reactivity Of Mixes Isobond SR 1170 W / Isobond SD 205x B

Systems	Temperature	Isobond SR 1170 W / Isobond SD 2052 B Slow hardener	Isobond SR 1170 / Isobond SD 2055 B Fast hardener
Gel time as a film	@ 20 °C	4 h 30'	1 h 45'
	@ 30 °C	2 h 30'	1 h 30'
Dust free as a film	@ 20 °C	4 h 45'	1 h 50'
	@ 30 °C	3 h 30'	1 h 30'
Sandable after a minimum	@ 20 °C	24 h	7 h
	@ 30 °C	10 h	3 h 45'

Polymerisation

Bonding and fillet-joints made from **Isobond** harden at room temperature.

A mild post-cure will improve all mechanical properties & increase temperature resistance.

	ISOBOND Slow SD 2052 B	ISOBOND Fast SD 2055 B
Bonding under load at 20°C: wait for Can be handled after:	72 hrs 24 hrs @ 20 °C	24 hrs 16 hrs @ 20 °C
Recommended minimum postcure cycle:	12 hrs @ 40°C 16 hrs @ 50 °C	8 hrs @ 40 °C 16 hrs @ 50 °C
Recommended post cure cycle:	or 8 hrs @ 60 °C	or 8 hrs @ 60 °C

Application of Isobond SR 1170 W / Isobond SD 205x B

A careful mix of SR 1170 W & hardeners must be done, particularly on sides and bottom of the pot.

The mix is considered properly stirred when its colour becomes homogeneous.

Substrates Preparation:

Minimum: degreasing, sanding, dust off.

In order to bond "difficult" materials such as aluminium, steel, thermoplastics, please consult us.

Mechanical Properties of Bonding between Epoxy Laminates

Test Reference		CE 404	CE 404
Adhesive		SR 1170 W / SD 2052 B	SR 1170 W / SD 2055 B
Post-cure		48 hrs @ AT + 16h @ 50 °C	48 h@ AT + 16h @ 50 °C
Short beam			
Shear strength	N/mm ²	31	31
Glass transition / DSC			
Tg 1	°C	71	71
Tg1 max	°C	73	76

Norms:

Shear strength: NF T 57-104 Flexion 3 points

Glass Transition: ISO 11357-2: 1999 / DSC / under nitrogen from -5 to 180 °C, 20 °C/min

Tg1: onset

Tg 1 max: onset second passage.