

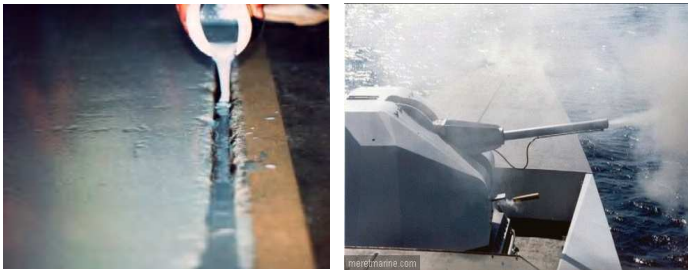


# Resin 2050 BL

## Hardeners 2053 - 2055 - 2059

### Epoxy system for casting, chocking & injection

- Adjustable working time from 30min to 13h
- Filled system with very good flow characteristics
- Hardening at room temperature.



The RESOLTECH 2050BL is a high performance epoxy casting system suitable for casting & chocking ranging from a few millimeters to several centimeters without shrinkage.

The system provides high mechanical properties, notably in compression, and allows for large castings to be made in a single operation.

It features an excellent adhesion to most substrates, even in humid environments, good wetting ability to the support it will adhere to, and excellent air release.

All the hardeners may be mixed together thanks to obtain intermediate hardening times, making the system adaptable to all castings and easy to control the exothermy.

The granulometry of the charges enables the 2050 BI also to be injected or to be casted by gravity thanks to its very good flow characteristics

The 2050BL is commonly used for:

- Chocking of navy turrets, stone crushers, production tools
- Anchoring of metal & composite structures in all type of support such as concrete, wood, artificial or natural stone, masonry..etc..
- Pressure Injection into concrete slab cracks
- Epoxy mortars & grouts when mixed with additional fillers

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## MIXING RATIO

Resin 2050 BL

100 pbw

Hardener 2053, 2055, 2059

10 pbw



Warning: the mixing ratio must be accurately followed. It is not possible to change the ratio, it would result in lower mechanical properties. The mixture should be thoroughly stirred to ensure full homogeneity. It is important to note that epoxy systems tend to heat up much faster in a pot than as a thin film. It is preferable to only mix the necessary amount usable within the given pot life. Keeping the mixture in flat open containers reduces the risks of exothermic reaction.

## APPLICATION

It is recommended to have workshop temperature conditions between **18-25°C** in order to facilitate the mixing and the application. A lower temperature will increase the viscosity of the mix as well as its pot life. On the contrary, a higher temperature will reduce the viscosity and the pot life of the mix. It is possible though to use this product between 10 & 35°C.

It is recommended to use the double potting mixing strategy: add the hardener in the pail, mix thoroughly, scraping the sides of the pail, and then pour in another clean recipient and mix again, ensuring all the resin will have properly mixed with the hardener

For more information, please refer to the applications technical bulletins (TechNotes), available on request.

## PHYSICAL CHARACTERISTICS @ 23°C

### Visual Aspect

- 2050 BL : Brown filled liquid
- 205x : Clear to slightly yellow liquid
- Mix : brown filled liquid

### Density according to ISO 1675

Reference	2050 BL	2053	2055	2059
Density @ 23°C	1.80 ± 0.03	0.95 ± 0.03	0.98 ± 0.03	0.99 ± 0.03
Mix density @ 23°C	-	1.72 ± 0.03	1.73 ± 0.03	1.73 ± 0.03

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Viscosity (mPa.s) according to ISO 2555 & 12058.2

Reference	2050 BL	2053	2055	2059
Viscosity @ 23°C	80000 ± 20000	17 ± 10	32 ± 10	300 ± 25
Mixed viscosity @ 23°C	-	5000 ± 1500	17500 ± 3000	29000 ± 5000

## REACTIVITY @ 23°C

System	2050 BL / 2053	2050 BL / 2055	2050 BL / 2059
Gel time on 70mL—or 4 cm	13h30min	3h30min	27min
Time of exothermic peak on 70 ml	N/A	1h26min	30min
Exothermic peak temperature	N/A	34°C	80°C

## CURE & POST CURING

It is important not to start the curing at temperatures above 40°C without previous advice. High temperature initial curing may create tensions on the laminate and their consequent deformations & shrinkage due to the CTE.

90% of the thermo-mechanical properties are obtained after 7 days at room temperature (25°C). Curing at 40 °C after the resin has gelled will reduce the curing time.

The system reaction is exothermic like all thermosetting resins, it is recommended to make trials when the mass to cast is important.

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## MECHANICAL CHARACTERISTICS

Cure/Postcure	14 Days @ 23°C			8 hours @ 40°C		
	2050 BL / 2053	2050 BL / 2055	2050 BL / 2059	2050 BL / 2053	2050 BL / 2055	2050BL / 2059
References						
Compression Module	5.9GPa	5.7GPa	5.5GPa	5.5GPa	5.3GPa	5.1GPa
Compression Strength	92.7MPa	95.6MPa	96.2MPa	94.5MPa	-	97.4MPa
T <sub>Gm</sub>	45.5°C	46.7°C	51.5°C	45.9°C	46.9°C	52.1°C

### Norms:

Compression : ISO 604

T<sub>G</sub> Kinetech®

All Mechanical test done @ 23°C

## PACKAGING

- 2050 BL + 205x: 9.1kg + 0.91kg
- 2050 BL + 205x: 18.2kg + 1.82kg

## TRANSPORT & STORAGE

Shelf life is one year in sealed containers as provided. Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area.

## HEALTH & SAFETY

It is advised to follow basic rules such as avoiding skin contact, wear masks when producing dust. Please read our standard health and safety sheet for more information.

In case of eye contamination, wash with water and seek medical advice.

Nota The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply..

Nota : Les informations contenues sur cette fiche technique sont fournies de bonne foi et sont basées sur les tests de laboratoire et notre expérience pratique. Étant donné que l'application de nos produits échappe à notre contrôle, notre garantie est strictement limitée à celle de la qualité du produit.