

# CHILL DIAMOND FAST™

Fast epoxy for  
small castings

MIXING RATIO

2:1

## CHARACTERISTICS

Crystal clear transparency

High quality raw materials

Self leveling

Excellent impact resistance

100% solid

No withdrawal

VOC  
FREE  
PRODUCT



PRODUIT  
SANS  
COV

APPROVED / APPROUVÉ

Contact

POLYMÈRES TECHNOLOGIES

for more information:

support@polymerestechologies.com

## DESCRIPTION

CHILL DIAMOND FAST™ is an epoxy system with high UV resistance made with 100% reactive materials. It is ideal to fill cracks, voids and knots. It can also be used to cast small transparent objects or colored jewels such as earrings, necklaces, bracelets, hairpins, cufflinks, and more.

Its pot life allows a fast manipulation time of under 12 hours. Its low viscosity, maximizes infiltration in the interstices of the substrates on which CHILL DIAMOND FAST™ is poured. The product is transparent and offers a glossy finish.

## INSTRUCTIONS

### PREPARATION

Before using CHILL DIAMOND FAST™, mix 2 parts of A with 1 part of B by volume (or 100 A for 45 B by weight). Mix evenly with a metal spatula for about 5 minutes making sure to scrape the edges and bottom of the container.

### USAGE

Since the pot life of this system is only 24 minutes long at 22°C (72°F) for a mass of 200g, make sure not to mix more material than what can be applied within this time frame. It is important to note that pot life will shorten in a warmer environment and will lengthen in a cooler one. Also, the more resin is mixed, the more its pot life decreases.

### STORAGE

Store CHILL DIAMOND FAST™ on a pallet or shelf at 22°C (72°F) with a relative humidity under 60%. A cold environment will increase the viscosity of parts A and B and a warm environment will decrease it. Uncured material can be easily cleaned with isopropyl alcohol or with POLY CLEANER™.



Fast setting epoxy  
Pot life of 24 minutes

A/B kits available in 1.5L and 3L sizes

CHILL  
EPOXY™  
By Polymères Technologies

### TYPICAL PROPERTIES (AT 22 °C/72 °F)

		PART A	PART B	MIX
VISCOSITY	Brookfield (cps)	675	295	385
CONSISTENCY		Liquid	Liquid	Liquid
DENSITY	g/cm <sup>3</sup>	1.14	1.02	1.078
MIXING RATIO	By volume	2	1	2/1
	By weight	100	45	100/45
COLOR		Transparent	Transparent	Transparent
POT LIFE	200g	24 minutes		
DEMOLDING TIME		1 to 8 hours depending of mass		
PEAK EXOTHERMIC TEMPERATURE	ASTM D 2471-71	168°C		
FULL CURE*		2 to 3 days depending on piece design and volume		
*After material has solidified, the curing process can be accelerated at 51.7°C (125°F).				

## PRECAUTIONS

- Consult material safety data sheet prior to use.
- Normal health and safety measures should be observed when handling this product.
- Ensure good ventilation.
- Wear gloves, safety glasses, and protective clothing.
- Once the container is opened, POLYMÈRES TECHNOLOGIES can no longer be held responsible for this product.
- Shelf life of product in original closed containers is one (1) year.

[sales@polymerestechnologies.com](mailto:sales@polymerestechnologies.com)

6330 Boulevard Laurier O, Saint-Hyacinthe, QC J2S 9A7

+1 (450) 250-3058

CHILL  
**EPOXY™**

### PHYSICAL PROPERTIES (SOLID STATE AFTER 7 DAYS AT 22 °C/72 °F)

TEST	METHOD	RESULTS	
HARDNESS	ASTM D 785 65	Shore D	82
COMPRESSIVE STRENGTH	ASTM D 695 80	MPa*	91.05
		Maximum strain %	4.4%
TENSILE STRENGTH	ASTM D 638 Type 1	MPa	46
FLEXURAL STRENGTH	ASTM D 790A	MPa	119
ELONGATION	ASTM D 790A	MPa	4.1%
DEFLECTION TEMPERATURE		455 kPa**	52°C
		1820 kPa	54°C
IMPACT RESISTANCE	ASTM D 256 81	J/m***	75
LINEAR SHRINKAGE	ASTM D 2566 79	cm/cm	0.0024
ABRASION RESISTANCE	TABER CS 17-1000 GR	0.072	
COEFFICIENT OF LINEAR THERMAL EXPANSION	ASTM D 696 79	4.426 x 10 <sup>-5</sup>	

\*1 MPa = 145 lbs  
 \*\*1 kPa = 0.145 psi  
 \*\*\*53.4 J/m = 1 blF/po

It is recommended to follow provincial and federal safety regulations. In case of eye contact, rinse well with water. In case of skin contact, rinse with soap and water. Keep away from children.

#### GUARANTEE

Having no control over the use and application of this product, the manufacturer and/or distributor cannot guarantee the result obtained. The warranty is therefore limited to the replacement of a product that the user has demonstrated to the satisfaction of the manufacturer and distributor that it is actually defective. Before using this product, the user must ensure that the product is suitable for its intended use. Only the user assumes the risks related to this use. The user must ensure that this product meets his needs by conducting tests in the short, medium and long term to validate the results and in the conditions of use and according to the instructions provided. This limited warranty excludes all liability for consequential, incidental or special damages. Except as described above, the user expressly acknowledges and accepts at the time of the purchase of this product that the manufacturer and / or distributor disclaims any other liability and any other express or implied warranty of quality and an implied warranty of quality of the material are expressly excluded.

[sales@polymerestechologies.com](mailto:sales@polymerestechologies.com)

6330 Boulevard Laurier O, Saint-Hyacinthe, QC J2S 9A7

+1 (450) 250-3058