

Crystal-Cast™ R132

Rigid Polyurethane



SCABRO
Ideeën Krijgen Vorm

Crystal-Cast™ R132 has been formulated for use in casting applications where thick sections (20-200mm) and a high degree of strength, crystal clarity, low colour and low shrinkage are required.

Typical Properties

	Property		Typical Value	Units
Components	Colour	Part A	Water-Clear	-
		Part B	Water-Clear	-
		Mixed	Water-Clear	-
	S.G.	Part A	1.06	-
		Part B	1.07	-
		Mixed	1.06-1.10	-
Mixed Product	Gel Time (10kg 20°C)		8-12	Hours
	Demould Time (see cure schedule)		56	Hours
	Full Cure (see cure schedule)		58	Hours
Cured Product	Hardness at full cure		84	Shore D
	Other properties are under test and will be published in due course.			

Preparation and Use

The components should be measured to an accuracy of 2% or better. Care should be taken when measuring by volume, as this is an inherently inaccurate method unless specific volumetric measuring equipment is used.

- Material:** Part A – Thorough mixing prior to use, temperature 20-25°C
Part B – Check product is clear and free from sediment prior to use, temperature 20°C.
- Mould:** Temperature: 20-30°C (Cold temperatures will result in longer cure and demould times).
- Cure Schedule:**
1. Mix, degass and pour at room temperature.
 2. Immediately place into an oven at 30C for 48 hours.
 3. Increase temperature to 40C for 8-12 hours.
 4. Final cure (if required) at 60C for 4-8 hours.

By following this schedule beautiful clear castings have been produced. Curing only at room temperature or heating too quickly too soon will not result in satisfactory product, giving bubbles, voids and excessive shrinkage. If in doubt please contact Atlas Polymers.

Key Data

Mix Ratios

1.00 A
to
1.00 B
by weight
1.03 A to 1.00 B
by volume

Viscosities

A: 650 mPa.s
B: 35 mPa.s

Temperatures

Materials
20-25 °C

Mould
20-30 °C

Gel Time

(10kg @ 20°C)

8-12 Hours

Demould Time

(see cure schedule)

56 Hours

Full Cure

(see cure schedule)

58 hours

Hardness

(Shore D)

84 ±2

Handling and Storage

- Part A:** Read the Safety Data Sheet before using this material. Good housekeeping is important with this material as with all chemicals. Spillages should be wiped up immediately and containers wiped clean after use. Exposure to atmosphere should be minimised and containers sealed as soon as possible after use. Store in the original container in a dry place at 5-25°C. Shelf-Life - 12 months from the date of manufacture when stored correctly in unopened containers.
- Part B:** Isocyanate spillages can be especially hazardous and the Safety Data Sheet should be consulted for the correct cleaning up procedure. Exposure to atmosphere should be minimised and containers sealed as soon as possible after use. Store in the original container in a dry place at 20-25°C. Shelf-Life - 12 months from the date of manufacture when stored correctly in unopened containers.

Health and Safety

- Part A:** Not classified according to the requirements of the CHIP regulations. However care should be taken to avoid direct contact and gloves, goggles and impervious overalls should be worn.
- Part B:** TOXIC by inhalation. In addition it may cause sensitisation by inhalation and skin contact and is classified as IRRITANT to eyes, respiratory system and skin. At room temperature the vapour hazard is low but significant and care should be taken not to allow vapours to accumulate. This is especially likely if the product is heated. Avoid direct contact with skin and eyes by means of gloves, goggles and impervious overalls.

Availability

10kg (5kg A + 5kg B), 40kg (20kg A + 20kg B), 400kg (200kg A + 200kg B)

Suitability for Use

The information in this datasheet is given to the best of our knowledge and belief but without warranty or liability. The user must establish the suitability of the material for the intended application by carrying out any appropriate tests. Finished products produced from any batch of our materials must be subjected to comprehensive standards of quality control by the user. No liability will be accepted for direct or consequential losses arising from the use of this material. However any comments or suggestions relating to improving the processing or characteristics of this material will be very welcome.