

## Product Name

### FLEXICAST® BR

### Flexible Brush-On Moulding Rubber 35A Polyurethane Elastomer

## Product Description

Flexicast BR is a two part polyurethane elastomer that cures at room temperature to a flexible, high strength mould rubber. Moulds made from Flexicast BR are durable and ideal for casting plasters, waxes, FMG and concrete. Moulds can also be used for resins such as polyurethane, polyester and epoxy, however a short mould life may be experienced.

The final parts or moulds made from Flexicast BR will be tough and long wearing. Flexicast BR is suitable for in-situ mouldmaking from vertical or overhead surfaces. Flexicast BR readily bonds to a variety of substrates and is widely used as an adhesive or sealant.

## Physical Properties

Hardness		Shore A	35
Specific Gravity, cured		g/cc	1.02
Colour		Visual	Light Blue
Tensile Strength		psi [mPa s]	436 [3.00]
Tear Strength	Die C	pli [kN/m)	70 [12.25]
Elongation		%	620
Shrinkage, linear		in/in	Nil

## Handling Properties

Mix Ratio	By Weight	Part A	100 pbw
		Part B	100 pbw
Viscosity	cps @ 25°C	Mixed	Thixotropic
Work Time	100g mass @ 25°C		15 minutes
Gel Time	100g mass @ 25°C		20-25 minutes
Demould Time	@ 25°C		4-6hrs (note 1)
Cure Schedule	7 days ambient; or demould followed with post cure of 6 hours @ 50°C is recommended to promote maximum physical properties. See Mix & Cure.		

## Master Preparation:

- Porous masters made of timber or plaster may need to be sealed to prevent penetration of the rubber into the pores of the material/master.
- For most applications Stoner E236 or J-Wax will provide adequate release from a sealed or non-porous master.
- For multi-piece moulds, Flexicast will bond to cured Flexicast, ensure a suitable release such as E236 or J-Wax is applied to the cured Flexicast surface prior to pouring.
- Master sealed with Shellac must have sufficient release agent applied as Flexicast will readily bond to a shellac coat surface.

- When in doubt, a small sample pour is always recommended to test for complete curing and proper release.

## Mix & Cure

- After correctly weighing Parts A and B, mix thoroughly to achieve a uniform consistency.
- A common practice is to place the mixed material into a second container and quickly mix again. This will ensure that no unmixed materials are used.
- Apply the first coat to the master surface and allow to dry for approx 1hr. Subsequent coats can be applied but care must be taken not to disturb the first or prior coats. Ensure that these coats are applied before the prior coat is fully cured.
- Generally the Flexicast BR thickness for most mould would be 4-10mm.
- Strong open weave fabrics can be laminated into the Flexicast BR to enhance tear resistance in areas prone to tearing such as flanges and sharp corners.
- Avoid curing the material in temperatures below 15°C.
- Ultimate properties are achieved after 7 days at room temperature, however moulds can be used with care after curing for 48 hours.

## Cured moulds

- When pouring plasters and molten waxes into Flexicast BR release agent is generally not required, however an application of Pure Lube Mould Soap will help reduce air bubbles in plaster and aids release.
- E236 and J-Wax are the best choices for most resin casting systems.
- Water based release agents such as Flexi-Coat is preferred when casting concrete.
- Excess exposure to solvent containing releases should be kept to a minimum when required to reduce the chance of mould distortion due to swelling or shrinkage.
- Shrinkage and swelling may become apparent after repeated casting with resins having strong solvents or porous casting materials such as plaster and cement which can extract oils from the mould surface. Proper choice of mould release can help minimize this.

## Storage

Opened containers of material should be purged with F720 Dry Air Blanket prior to replacing lids or caps, to prevent moisture contamination from humid air.

Store at room temperature in a dry area.

## Issue Date

5<sup>th</sup> July 2017

## Revision Number

1

## Disclaimer

The data presented in this leaflet are in accordance with the present state of our knowledge, and does not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the product for a particular purpose.