



RIM 180FR

Two-component, fire retardant polyurethane RIM (Reaction Injection Moulding) material with a 3-minute pot-life

Ru-bix Tooling Board
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APPLICATIONS

- HIGH IMPACT MOULDINGS
- THIN WALLED MOULDED SECTIONS
- ❖ FILLED AND UNFILLED CASTINGS WITH RAPID DEMOULD TIMES

PROPERTIES

- HIGH MECHANICAL PROPERTIES
- **❖** GOOD FLOWABILITY
- **❖** FAST DEMOULD TIME
- ❖ UL94 V0 GRADE

LIQUID COMPONENTS

PROCESSING PROPERTIES	UNITS	RIM	RIM
		180FR-A	180FR-B
SPECIFIC GRAVITY	g/ml	1.04	1.24
VISCOSITY @ 25°C	mPa.s	3200	180
MIXING RATIO	w/w	100	58
POTLIFE (100g)	min	3	
DEMOULD TIME	min	20-25	
FULL CURE TIME	days	1	

CURED LAB SAMPLE

TYPICAL PHYSICAL PROPERTIES	UNITS	MOULDED ITEM	
COLOUR	g/ml	Light Beige	
DENSITY	kg/m³	1200-1250	
SHORE HARDNESS	Shore D	80-84	
FLEXURAL STRENGTH	MPa	65-70	
FLEXURAL MODULUS	MPa	1850-2000	
TENSILE STRENGTH	MPa	40-44	
ULTIMATE ELONGATION	%	5-8	
IMPACT STRENGTH	kJ/m ²	30-35	
FIRE PERFORMANCE	UL 94	V0 Rating	
HEAT DISTORTION TEMPERATURE	°C	110 (post-cured)	

FIRE RETARDANT PROPERTIES:

RIM 180FR has been tested to the UL94 fire performance test and has achieved a V0 rating. It should be understood that this rating does not in itself provide information regarding how a product manufactured from RIM 180FR will perform in an actual fire situation.

"Shaping The Future"

Product Characteristics: Low viscosity chemicals, good flowability in complex moulds.

Good wettability with fillers. High filler loadings possible. Very fine surface detail. Short demould time. Good impact strength.

Can be used for thin and thick moulded sections.

Processing Guide: Parts A and B should be well agitated before use.

Chemicals and moulds should be maintained at 20-25°C.

If using fillers, ensure they are finely dispersed in RIM 180FR-A.

If applying to a wooden surface, ensure that it is properly

sealed before application of the mixed resin.

Storage/Disposal: If stored at 15-25°C in unopened containers, the products will

have a shelf life of 12 months. They should not be stored outside of these limits. Once containers are opened, they should be closed as soon as possible in order to prevent the

ingress of moisture.

Packaging that cannot be thoroughly cleaned should be

disposed of as product waste.

Legal Disclaimer: Recommendations and technical information are provided in

good faith, based on current knowledge and experience. However, due to variations in storage conditions, storage period, substrates and site conditions, no warranty in respect of fitness for purpose can be inferred from this information.

The user must test the product's suitability for the intended application. Ru-bix Tooling Board is happy to provide free-issue samples for this purpose. All orders are accepted subject to our current terms of sale, a copy of which can be obtained from the

Ru-bix office.