



FOUNDRY PRODUCTS: Technical Data Sheet

PRODUCT: Polyol Urethane No Bake System - *Rapidset™*

CHARACTERISTICS:

This RAPIDSET NO-BAKE SYSTEM is made up of the following three components:

1. **Rapidset A125.** Zero Formaldehyde, Zero Phenol Part A resin
2. **Rapidset B130** Isocyanate Solution
3. Amine Catalyst **Rapidset C175**

The Rapidset A125 / B130 binder system is a pre-catalysed resin which can be speeded up to suit specific operating conditions with the incorporation of the tertiary liquid catalyst Rapidset C 175.

The Rapidset binder system maintains the work time / strip time benefits of the more traditional Rapidur PUNB binder system but allows for more complete thermal decomposition and breakdown at the lower metal pouring temperatures of non ferrous melting.

Rapiset binder components are free flowing liquids providing excellent mixing and coating to be achieved on the dry sand. Uncured sand yields excellent flowability and compaction allowing hard and dense moulds to be produced with excellent detail. Cores and moulds are dimensionally stable after curing, minimising any tendency for sag and warp.

FIELD OF APPLICATION:

Large or small quantities of cores and moulds for aluminium or light alloy castings and bronze, but can be used also for cast iron and steel. High front end strengths, low odour, low VOC and low lustrous carbon. This system is suitable for use in all types of ambient conditions and with all foundry sands.

PHYSICAL AND CHEMICAL PROPERTIES: Typical.

All methods from ISO 9001/mcl.labmet

	<u>RAPIDSET A125</u>	<u>RAPIDSET B130</u>
Specific Gravity 25°C 1.105 kg/l	1.090 – 1.120 kg/l	1.080 –
Viscosity @ 25°C FC#4	maximum 50 seconds	10 – 14 seconds
Refractive Index @ 25°C 1.5800	1.5460-1.5540	1.5700-
Colour / State	Amber / Heavy Liquid	Brown /
Water-like Odour		Mild Aromatic Odour

METHOD OF APPLICATION (standard):

100 parts in weight silica sand AFS 50 – 55
 0.5 - 1.0 " " " RAPIDSET A125
 0.5 - 1.0 " " " RAPIDSET B130



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The RAPIDSET A125 and RAPIDSET B130 are designed to be used at a 50/50 ratio of A to B but can cover a range of 45:55. Curing depends on the sand temperature, percentage of the catalyst used, and quality of reclaimed sand. Work times from 3 – 45 minutes are available, as are equivalent strip times.

HANDLING:

Rapidset A125 and Rapidset B130 contain ingredients that could be harmful if not handled properly. Please see details in MSDS.

Packaging: Rapidset A125 and Rapidset B130 binder components are available in bulk, totes, 45 Gallon drums or small containers.

Storage: Optimum storage temperature is between 15°C - 30°C. Water can react with both Rapidset A125 and B130. Therefore care must be taken to avoid contamination with any form of moisture.

SHELF LIFE:

Can be stored in steel containers at temperatures not lower than -7 °C for no longer than 6 months. Do Not store in direct sunlight.

SAFETY MEASURES:

Safety glasses and rubber gloves must be used when transferring. Consult MSDS for further information.

MANCUSO CHEMICALS LIMITED

5725 Progress St.,

Niagara Falls ON

Canada L2E 6X8

www.mancusochemicals.com

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