



FOUNDRY PRODUCTS: Technical Data Sheet

PRODUCT: POLYURETHANE NO-BAKE BINDER SYSTEM *RAPIDUR™ ULTRA*

A MANCUSO CHEMICALS GREEN TECHNOLOGY PRODUCT

LOW ODOR, HIGH STRENGTH, GOOD BREAKDOWN AND SHAKEOUT SYSTEM

DESCRIPTION:

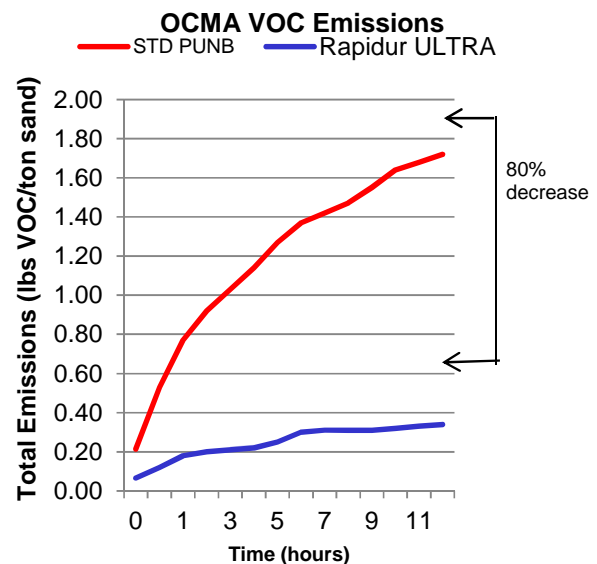
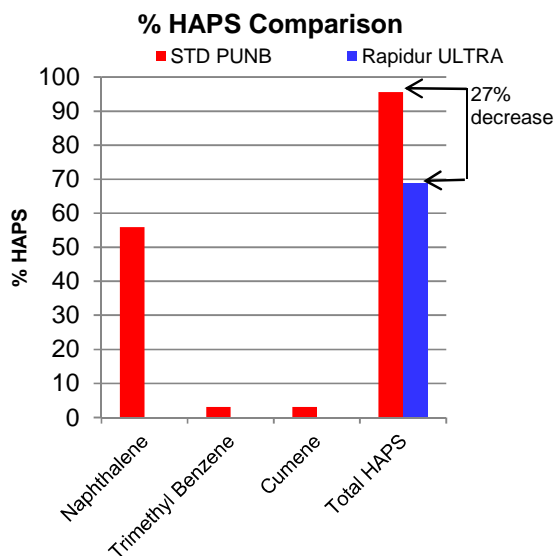
This *RAPIDUR™ ULTRA* NO-BAKE SYSTEM is made up of the following three components:

1. *RAPIDUR™ A X.X ULTRA* Low Formaldehyde Phenolic binder (less than 0.1% formaldehyde)
2. *RAPIDUR™ B X.X ULTRA* Isocyanate Solution
3. *RAPIDUR™ C7* and *C8* Amine Catalyst or Standard Catalyst Series

- i) Significant Elimination of VOCs, HAPs, odor and smoke.
- ii) Combines the strength and performance of the Rapidur system with improved environmental performance.
- iii) A completely Naphthalene free solvent package

Rapidur ULTRA™ PUNB system has been engineered to provide all the same performance benefits of the Rapidur™ system providing fast thru cure, excellent tensile strength development, consistency of production, excellent reclaimability, and the ability to run at lower binder levels. The ULTRA series has specifically been developed to help foundries lower reported emission levels and secure operating permits. In order to achieve this, Hazardous Air Pollutant solvents (HAPS) have been removed in order to reduce odour and VOC's. OCMA VOC emissions test results can be viewed below demonstrating the significantly lower emissions for the ULTRA system when compared to a standard PUNB binder.

Technical Data



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MTDS *RAPIDUR A X.X B X.X ULTRA*

FOUNDRY – COATINGS – STEEL MILL - SULPHONIC ACIDS - PSA
 TOMORROW'S **GREEN CHEMISTRY**, TODAY



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FIELD OF APPLICATION:

Large or small quantities of cores and moulds, from floor molding through to high speed 'loop' and carousel operations for cast iron, steel, bronze, or light alloy castings. The Rapidur binder system exhibits very high front end strengths, a fast thru-cure, low odour, and low lustrous carbon. This system is suitable for use in all types of ambient conditions.

PHYSICAL AND CHEMICAL PROPERTIES:

	<u>RAPIDUR A X.X ULTRA Typ</u>	<u>RAPIDUR B X.X ULTRA Typ</u>
Specific Gravity @ 25°C	1.070 - 1.115 kg/l	1.125 - 1.160 kg/l
Viscosity @ 25°C	200 cps. Max.	70 cps. Max.
Refractive Index @ 25°C	1.5210 - 1.5320	1.5760 - 1.5870
Colour / State	Amber / Heavy Liquid	Brown / Water-like

METHOD OF APPLICATION (standard):

100 parts in weight silica sand AFS 50 – 55
 0.5 - 1.0 " " " RAPIDUR™ A 1.0 ULTRA
 0.5 - 1.0 " " " RAPIDUR™ B 2.0 ULTRA

The RAPIDUR™ A X.X ULTRA and RAPIDUR™ B X.X ULTRA can be used in a ratio of 50:50 to 60:40. Curing depends on the strength of the catalyst used, sand temperature and quality of reclaimed sand. Work times from 3 – 45 minutes are available, as are equivalent strip times.

HANDLING:

RAPIDUR™ A X.X ULTRA and RAPIDUR™ B X.X ULTRA contain ingredients which could be harmful if not handled properly. Please see details in MSDS.

Packaging: RAPIDUR™ A X.X ULTRA and RAPIDUR™ B X.X ULTRA binder components are available in bulk, totes, 45 Gallon drums or small containers.

Storage: Optimum storage temperature is between 15°C - 30°C.

SHELF LIFE:

If stored in a cool dry area, out of direct sunlight, it can be stored in unopened, sealed totes or metal drums for 2 years. Once opened attach driers to the totes or drums of the RAPIDUR™ B X.X ULTRA to keep the product dry and free of moisture. Moisture can react with RAPIDUR™ B X.X ULTRA to form sludge as well as producing carbon dioxide gas.

SAFETY MEASURES:

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

Always read and follow the directions contained on the label and material safety data sheet before use.

** The information presented, while not guaranteed, is to the best of our knowledge true and accurate. No warranty or guarantee, express or implied, is made regarding the performance or stability of any product, since the manner of use and conditions of storage and handling are beyond our control. No suggestions for product use are intended as and nothing herein shall be construed as a recommendation to infringe any existing patents or to violate any government laws.



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