



FOUNDRY PRODUCTS: Technical Data Sheet

PRODUCT: Polyurethane Cold Box System for Aluminium Aluset™

DESCRIPTION :

This is a three part binder system, composed of:

Part A: A low free-formaldehyde (less than 0.1%) phenolic resin in solvent, often including proprietary release additives that has been specifically formulated to allow for improved shakeout in aluminium and low melting point alloy castin

Part B: An isocyanate solution based on polymeric MDI; often containing a variety of additives to allow for extended bench life or for use with water core wash/oven baking operations

Part C: An amine based catalyst (typically Catalyst TEA or DMEA)

It is a cold curing system that allows for fast, continuous production.

FIELD OF APPLICATION :

Large or small quantities of cores and moulds for aluminium or light alloy castings (although the **Rapidcure** CB binder may be more appropriate for these types of operations if product cost is the overriding consideration). The Aluset CB binder system are known for developing very high front end strengths, low odour, and low lustrous carbon. Cores and molds will exhibit good resistance to humid conditions. Most Aluset CB binders contain proprietary additives that will result in cleaner tooling and lower amine usage. These products have been designed to be used in both high productivity operations (such as automotive OEM and aftermarket) as well as being suited to large core making operations that demand a rapid strength development. These systems are designed to have lower hot strengths than standard iron/steel cold box products.

METHOD OF APPLICATION (standard):

100 parts in weight silica sand AFS 50 – 55

0.4 – 0.8 " " " ALUSET A – Current product designated CB A 300

0.4 – 0.8 " " " ALUSET B – CB B 980 is the standard product (for example cylinder heads), while the CB B 950 is a specialty product to be used for cylinder blocks. When using the CB B 980 product exclusively, 0.8% total binder levels are appropriate for cylinder head production, while a 1.1% binder level may be necessary or cylinder head production.

The ALUSET products are designed to be used at a 55/45 ratio of A to B but can cover a range of 60:40 to 45:55. Curing depends on the strength of the catalyst used, sand temperature and quality of reclaimed sand. Bench life of up to 6 hours are available.

HANDLING:

Aluset products contain ingredients which could be harmful if not handled properly. Please see details in MSDS.

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Packaging: 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 CB - B products to form a sludge as well as producing carbon dioxide gas.

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.

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