NO-BAKE System COROFEN



Binder system for the No-Bake Acid process

Corofen are phenolic liquid binders with low free phenol and very free formaldehyde content (< 0.1%). They do not contain furfuryl alcohol.

Depending on the quality of the new or reclaimed sand used, they are added in percentages varying from 0.8% to 1.2% b.o.s. They cure at room temperature with the addition of an organic acid such as: toluene sulphonic acid, xylene sulphonic acid, benzene sulphonic acid and their blends.

Reaction mechanism

Corofen + Hardener



Phenolic polymer + water

Corofen binders are very versatile and perform very well for use with big iron castings, where a long bench life is required. They also have a high thermal resistance and are therefore recommended when heavy sections are involved as in the case of die or balance weight castings.



Fig. 1 – Corofen PREMIUM EM1







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Phenolic resins are used in combination with the hardeners on the following table.

Family	Name	Composition	Sulfuric Acid (%)	Inorganic Sulfur (%)
Strong	Hardener H 900	BSA	2.0	0.7
	Hardener H 760	BSA, TSA	2.0	0.7
	Hardener H 715	BSA, XSA	12.5	4.1
Medium Strength	Hardener H 60/0.4	TSA	0.4	0.1
	Hardener H 60/1.2	TSA	1.2	0.4
	Hardener H 50	TSA	1.2	0.4
Weak	Hardener H 35	TSA	1.2	0.4
	Hardener H 270	TSA	1.0	0,3
	Hardener H 28	TSA	1.2	0.4
	Hardener H 260	TSA	0.7	0,2

N.B.: it is absolutely essential to avoid direct contact between resins and acids in absence of sand.

Fig.2 – Corofen PREMIUM E1



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