

《Organic Additives for  
Ceramic Moldings》

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Various ways of manufacturing of ceramic moldings are provided in according with the kinds of raw material, shape of the moldings, usages, price and so on.

In these days, the use of new ceramics for mechanical parts increases, particularly, "Turbo charger" and "Hot chamber" which is one of the parts of an auto-mobile engine.

It is necessary to mass-product moldings homogeniously which have complicated shape.

Injection molding is well-expected as a way of molding for above-mentioned moldings.

Injection molding is developing now.

The efficiency of the binder is the key of the injection molding.

Hereafter, the required characteristics of the binder for injection molding are mentioned.

I. De-binding

Decrease the quantity of generated gas on de-binding.

II. Flow

Adequate fluidity under high pressure.

III. Deflocculation

Decrease the dose of the binder.

Homogenization of raw material.

IV. Others.

( Required characteristics of additives  
according to the ways of molding )

Molding method	Required characteristics
Injection	De-binding, Flow, Deflocculation, Strength, Shrinkage
Extrusion	Plasticity, Deflocculation, Strength, Lubricity
Rubber Pressing	Lubricity, Granulation, Strength
Slip Casting	Deflocculation, Strength, Thickness
Dry Pressing	Deflocculation, Cutting ability (stamp out), Plasticity
Doctor Blade Casting	Cutting ability, strength

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