



Plastics Fillers, Additives and Modifiers

Aluminum Grain

Aluminum Grain is used with rigid urethanes and epoxies such as: Dyna-Cast, Multi-Cast and other products to impart special added qualities such as improved heat conductivity and increased hardness to patterns.



Quantity	Description	Catalog Number
1 Pound	10/30	992-04A01
1 Pound	XX-Fine	992-04A03

To order please specify catalog number and number of pounds.

Walnut Shells

Walnut Shells are an inert filler for plastics—Dyna-Cast, Multi-Cast and epoxies. The shells take up space, reduce volume of plastic required to fill a given cavity and provide lower exothermic heat reaction that reduces shrinkage. Walnut Shells are available by the pound in four mesh sizes.

Mesh	Catalog Number
8/12	992-05AD25B
12/20	992-05AD3B

To order specify catalog number and quantity desired.



8/12 Mesh



12/20 Mesh

Fillites

Fillites are low cost, light, machinable backfill material that have been specifically designed to be compatible with all Haprez laminating systems achieving a strong, durable, backfill with excellent physical properties. Both the Haprez laminating/binder systems and the Fillites have been chemically treated. When combined, they bond together and act as a uniform structure. Machines just like wood, without the grain. When milled, a curled chip is produced, versus dust, when machining conventional polymer plastics. Fillite matrices are strong and will hold threads well. It can be drilled, tapped, sanded and planed. Fillites can be used at various ratios, i.e., 2-7 parts by volume Fillites to Haprez mixture allows the user to control cost and properties. The final selection of Haprez, Hapcure mix ratio, and ultimately the Fillite ratio used, will depend on the application and physical properties required. Hapco recommends that the user try various combinations before final manufacture, by mixing small amounts and testing.

Typical Properties

Form Free flowing small granules
 Color Tan/Brown
 Specific gravity63
 Hazardous content None
 Mix ratio of Fillites to mixed Haprez
 (parts Fillites to one part Haprez mixture) 2-7
 Machinability Excellent
 Thermal Conductivity Poor

Quantity	Catalog Number
40 lb. Box	988-FILLITES40

To order please specify catalog number and quantity.



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Chopped Glass Strands

Chopped glass strands provide increased impact resistance and dimensional stability. These fine strands are .0004" in diameter, and 0.5" and 0.25" in length, and are compatible with most plastics systems.

Description	Length	Catalog Number
Chopped Glass Strands	1/4	992-0601
Chopped Glass Strands	1/2	992-0602

Milled Glass Fibers

Glass Fibers are fine strands (1/64" long) which appear as a fine powder. Used primarily as a thickening medium for low viscosity plastics, Glass Fibers are used for many of the same applications as Cotton Flock. However, Glass Fibers also offer other advantages: they will allow most plastics to withstand an additional amount of heat in production and they also add significantly to the tensile strength of the cured plastic.

Description	Catalog Number
Glass Fibers	992-06

Sold by the pound.

Cotton Flock

Cotton Flock is a fine powder material used mainly for thickening low viscosity epoxies to form creamy pastes. These pastes can be used for a wide variety of applications in the pattern shop such as filleting, patching and mudding corners on laminates or casts to eliminate "egg crating". Flock does not add either strength or hi-heat capabilities to plastic.

Description	Catalog Number
Cotton Flock	992-07

Sold by the pound.

Paraplasts – Soluble Core Material

Paraplast products are dry, inorganic powders that melt upon heating. When melted they become a liquid that can be cast by conventional means into heat resistant molds. Upon cooling they solidify to produce smooth, hard, ceramic-like surfaces that can be de-molded without the use of parting agents.

Paraplasts can be recycled after use by breaking or melting away from the part or they can be removed by flushing with water.

Available in 50 pound pails.

Mfr's. Number	Color	Heat Resistance (°F.)	Catalog Number
8100	Pink	275	980-8100

To order specify catalog number and quantity desired.

Water Soluble Wax

A Time Tested Wax for Creating Soluble Pattern Cores

MASTER Water Soluble Wax was compounded for creating soluble cores in wax patterns. Several formulations are available.

When injected into a core die, MASTER Water Soluble Wax will conform precisely to the desired core shape. Pattern wax is then injected around the soluble core and upon

placing the complete part in acidified water, the core will readily dissolve. MASTER Water Soluble Wax will leave a smooth surface with dimensional integrity and no residue.

Sold by the pound in slabs.

To order contact factory to select proper formulation for your application.