Westar+3

cationic flake corn starch

Westar+3 Cationic Flake Corn Starch was developed specifically as a replacement for cationic potato starches with the added benefit of greater strength and hardness. Westar+3 has a high nitrogen content (0.3%), the same as imported European potato starches. Westar+3 will floc 25 - 30% more colloidal silica than our regular Westar+ Cationic Flake (0.2% N_2) giving it an advantage in high silica formulations (8% by weight of fibers).

Why Westar+3?

- **More uniform coating and floccing** - Corn flakes disperse much faster than potato flakes creating a more uniform product.
- **Flocs 25 – 30% more colloidal silica** – Readily flocs high silica formulation and is particularly effective with smaller particle size colloidal silica, such as Levasil FO1440.
- **Higher fired and green strengths** - Corn micelles are half the size of potato micelles, resulting in higher strength, hardness and density.
- **No cooking or pre-dissolving** - Readily dispersing flakes can be added dry directly to the slurry tank, providing more accurate additions, reduced bacterial attack, with less labor and equipment.
- **Made in the USA** - Corn starch does not suffer from periodic shortages and currency fluctuations as do the European potato starches .

Typical Properties

Appearance	White flakes
Bulk Density, pcf	18 - 24
Nitrogen Content, wt %	0.30
pH, 6% solution	6 - 8
Viscosity (cP), 6% Solids LVT, 60 RPM, #2 Spindle	50 - 300
Ionic Character	Cationic
Moisture, wt%	10 max
Packaging	35 lb kraft paper bags, 40 bags/ skid

How to Use Westar+3

Westar+3 Cationic Flakes disperse so readily they can be added dry directly to the slurry tank after dispersion of fibers and fillers.

Typical Formulation:

		with filler		with filler
Water, Gallons	50	50	50	50
Refractory Fiber, lbs	8	8	8	8
Mullite 100 filler, lbs	-----	4	-----	4
Westar+3 Starch, lbs.	0.4	0.6	0.4	0.6
Levasil FO1440, lbs	1.2	1.8	-----	-----
Levasil FO2040, lbs	-----	-----	1.4	2.1

Follow above order of addition. Add Westar+3 Flakes dry and mix for 10 minutes to allow hydration and swelling of starch before adding colloidal silica (Levasil); mix another 5 minutes to complete flocculating before vacuum forming. Dry at 250°F.

Note proper use: For best results, always add starch to slurry before the colloidal silica; the cationic starch serves to give a cationic charge to the fibers for efficient exhaustion of the negatively charged silica particles on fibers.

Storage, Handling and Safety

Because of the hygroscopic nature of Westat+3 it is highly recommended that the material be stored in its original package in a dry facility. Shelf life can be affected by storage conditions such as temperature, humidity and overall surroundings of the storage area.

For a price quote and valuable information on how we can help you improve your vacuum formed products call

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