Making better food... naturally.

Heat-Treated Wheat Flour

Siemer Specialty Ingredients
About Us

Teutopolis, IL (Headquarter)
- 7 million bushels of wheat annually
- 2.6 million bushels of storage
- Soft red winter wheat
- 10,000 cwts of flour per day

Hopkinsville, KY
- 3.5 million bushels of storage
- Soft red winter wheat
- Hard red winter wheat
- 16,000 cwts of flour per day

West Harrison, IN
- 1 million bushels of storage
- Soft red winter wheat
- Hard red winter wheat
- Whole wheat flour
- 10,000 cwts of flour per day

Siemer Specialty Ingredients
Heat Treatment Facility - Teutopolis, IL
- FHT I built in 2003
  30 million lbs annually
- FHT II built in 2015
  80 million lbs annually
Heat-Treated Flour Portfolio and Treatment Flexibility

Wheat Base
- Soft Wheat Flour
- Hard Wheat Flour
- Flour Blend

Treatment & Processing
- Conditioning Temperature
- Steam
- Water
- Hold Time
- Final Moisture
- Flour Granulation

Heat Treatments
- HT 2000
- HT 3500
- HT 8500
- HT 3000
- HT 9000
- HT 10,000

Stabilizations
- Stabilized Bran
- Stabilized Germ
- Stabilized Whole Wheat Flour

Flour Products
- HT Cake Flour
- HT Light Treatment
- HT Customized

[Diagram showing the relationship between wheat base components, treatment processes, and resulting flour products]
Heat-Treated Flour Profile

Starch Molecules

Rapid Visco Analysis

- Base flour
- Cake flour
- Cold viscosity (B4-Cup)
- Hot viscosity (amylogram)
- Energy (extensigram)
- Extensibility (extensigram)
- Resistance to extension (extensigram)
- Water content
- Wet gluten content
- Water absorption (farinogram)

- Base flour
- Batter flour
- Cold viscosity (B4-Cup)
- Water content
- Wet gluten content
- Hot viscosity (amylogram)
- Degree of gelatinization

Graphs showing the profiles of HT Flour and Non-HT Flour with data comparison.
Applications of HT Flour – Food Safety

Applications
• ice cream inclusions
• spoonable cookie dough
• seasoning blends
• extruded energy bars

Item Codes
HT 2000, HT 9000, HT 10,000, HT Light-treated Flour
Applications of HT Flour – Soup Sauce & Gravy

Modified Corn Starch

HT 3000

Control

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Test

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Advantages of HT Flour

- Naturally replace chemically modified food starches
- Quick dispersion
- Clean flavor carries through without masking
- Fast heat penetration during retorting
- Reduced skinning and extended hold time

Item Codes

HT 3000, HT 8500
Applications of HT Flour – Batter and Coating

Chicken Coating
Complete Batter Viscosity

Brookfield Viscosity (cp)

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Non-HT Flour
HT 3500
HT 8500

Non-HT Flour
HT 8500
Applications of HT Flour – Batter and Coating

Advantages of HT Flour
• Improved texture: crispy to crunchy
• Superior adhesion to substrate
• Highly controlled batter viscosity
• Extended hold time under heat lamp

Item Codes:
HT 3500, HT 8500, HT 9000, HT 3000

Top: Non-HT Flour
Bottom: HT 8500
Functionalities of HT Flour – Clean Label Cake and Pastry

Advantages of HT Cake Flour
- A natural alternative to chlorinated flour
- Parity in taste and texture
- Convenient, readily available source (based on soft red winter wheat, US origin)

Item Code: HT 8200

Advantages of Stabilized Germ, Bran & Flour
- Extended shelf life (6-9 months) at ambient temperature
- Improved nutritional profile with Vitamin E, Omega 3, protein and fiber
- Pleasant and balanced flavors

Item Code: Stabilized fine & coarse red bran, stabilized fine & coarse white bran, stabilized red & white whole wheat flour

With 10% Stabilized Wheat Germ
We’d like to talk with you...

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