Soy Flour and Grits

Soy flours and grits are made by grinding and screening soybean flakes either before or after removal of the oil. Their protein content are in the range of 40%-54%.

Soy flours and grits are the least refined forms of soy protein products used for human consumption and may vary in fat content, particle size, and degree of heat treatment. They are also produced in lecithinated or refatted forms. The degree of heat treatment creates varying levels of water dispersibility, a quality that can be useful in tailoring functionality in many food applications.

**Full-fat flours** [~ 40% protein (N x 6.25)] are produced from dehulled cotyledons and milled to a specific size.

*Uses: Primarily in Europe and Asia for industrial baking and soy milk production.*

**Enzyme-active or High PDI flours** [~ 52%-54% protein (N x 6.25)] are produced from defatted flakes with minimum heat. High nitrogen slubility index (NSI), as is basis.

*Uses: Increase the mixing tolerance and bleaching in bread; preparation of functional concentrates and isolates.*

**Defatted flours** [~ 52%-54% protein (N x 6.25)] are finely ground to pass through a No.100 U.S. Standard Screen. Controlled moist heat treatment is used to produce ‘white’ (85-90 NSI), ‘cooked’ (20-60 NSI), and ‘toasted’ white (<20 NSI) grades.

*Uses: Various uses where a wide range of protein solubilities are required.*

**Defatted grits** [~ 52%-54% protein (N x 6.25)] are ground to pass through U.S. Standard Screens between sizes No.10 and 80. See defatted flours (above) for treatment information.

*Uses: Ground meat systems and bakery products.*

**Lecithinated & refatted flours** have 0.5% to 30% lecithin or vegetable oil combined with defatted flakes.

*Uses: Improve water dispersibility and emulsification in bakery products.*

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