



# HARWICK

## STANDARD

ISO 9001-2015 REGISTERED

## Technical Data Sheet

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### STEARIC ACIDS FOR THE RUBBER, PLASTICS, AND OTHER INDUSTRIES

The major function of fatty acids in the rubber industry is their role in the vulcanization reaction. During the vulcanization of rubber with sulfur, the presence of both zinc oxide and a fatty acid is required to obtain an increase in both rate and efficiency of the crosslinking reaction. The composition of the fatty acid is not particularly critical in this activating function. Stearic acid can also be used in PVC processing as an external lubricant, and as a thickener in greases, lotions, and creams.

Harwick Standard has four main grades of stearic acid. There are three grades of tallow-based products and one grade of vegetable oil based product. F-2000 is classified as rubber grade stearic acid and is adequate for most rubber applications. F-1500 is a technical grade that can be used for manufacture of metallic stearates and when a high quality, light colored acid is required. F-300 is a high stearic content, premium fatty acid with a very low iodine number for the most critical applications. F-2500 is the vegetable based product for specific non-tallow based applications.

### TYPICAL PROPERTIES

Product	Congeaing Point, °C	Form	Description and Uses
F-2000	52 – 62	Flake	General, economical rubber grade product that is great for use as an activator, plasticizer, and lubricant in rubber compounds. Can also be used as a thickening agent for greases.
F-1000, F-1500	58 – 62	Flake	Technical grade of stearic acid used in the manufacture of metallic stearates and esters. Higher in quality and lighter in color than the F-2000, it is also a good option in PVC processing as an external lubricant and viscosity modifier.
F-300	58 – 61	Flake or Prill	Premium fatty acid grade that can be used in any applications where the highest quality stearic acid is required.
F-2500	50 min.	Flake	Vegetable based stearic acid derived from soy beans and palm. Especially useful for lotions, creams, and other personal care products. May also be used in rubber and plastics applications, or in the manufacture of metallic stearates where vegetable based products are preferred over tallow.

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