



Product Literature

ISO 9001:2008 REGISTERED

STEARIC ACIDS FOR THE RUBBER INDUSTRY

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. However, saturated acids, such as stearic acid, are generally preferred over unsaturated acids, since they will not adversely affect aging properties or color.

Harwick Standard Distribution Corporation has five grades of stearic acid for use in the rubber industry. There are four grades of tallow-based products and one grade of vegetable oil based products. F-2000 is classified as rubber grade stearic acid and is adequate for most applications. F-1000 and F-1500 are hydrogenated stearic acids and are designed for those applications requiring lower unsaturation as shown by a lower iodine number. F-300 is a high stearic content 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.

<u>Product</u>	<u>Color, Lovibond 5 ¼" Cell (*1" Cell)</u>	<u>Titer (°C)</u>	<u>Iodine Number</u>	<u>Acid Number</u>
<i>Tallow</i>				
F-300	1.5Y/0.2R	60	1	203
F-1000	10.0Y/1.5R	60	6	204
F-1500	10.0Y/1.5R	60	15	204
F-2000	30.0Y/5.0R*	52 Min.	7	195 Min.
<i>Vegetable</i>				
F-2500	50Y/5R	53 Min.	8	208

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