



## Standard Specification for Chip Soap<sup>1</sup>

This standard is issued under the fixed designation D 496; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

*This specification has been approved for use by agencies of the Department of Defense to replace Type I, Class 1 of P-S-1792. Consult the DoD Index of Specifications and Standards for the specific year of issue which has been adopted by the Department of Defense.*

### 1. Scope

1.1 This specification covers chip soap suitable for washing, cleaning, and scouring purposes with soft water, when the presence of alkaline salts is not desirable.

### 2. Referenced Document

2.1 *ASTM Standard:*  
D 460 Test Methods for Sampling and Chemical Analysis of Soaps and Soap Products<sup>2</sup>

### 3. Ordering Information

3.1 Chip soap is subject to a possible gain or loss of weight, depending on atmospheric or storage conditions, or both, or on packaging, as a result of fluctuation in the moisture content. Changes in the moisture content result in a corresponding change in the percentage of total solids or anhydrous soap content, or both.

3.1.1 The material shall be purchased by net weight, provided the matter volatile at 105°C is neither above nor below 8 %.

3.1.2 Deliveries containing more than 10 % of matter volatile at 105°C shall be rejected without further test.

3.1.3 On deliveries containing less than 10 % of matter volatile at 105°C, settlement shall be made on the basis of a product containing 8 % of moisture, that is, 0.92 lb of nonvolatile matter shall be considered 1 lb of soap.

3.1.4 When the material conforms to these specifications on a calculated 10.0 % moisture and volatile matter basis, the net weight of the material to be paid for shall be calculated as follows:

$$W = (R \times (100 - L))/92$$

where:

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-12 on Soaps and Other Detergents and is the direct responsibility of Subcommittee D12.22 on Specifications for Soaps and Synthetic Detergents.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 15.04.

TABLE 1 Chemical Requirements

Moisture and matter volatile at 105°C, max, %	10.0 <sup>A</sup>
Sum of free alkali, total matter insoluble in alcohol, and sodium chloride, max, %	6.0
Free alkali, calculated as NaOH, max, %	0.2
Matter insoluble in water, max, %	1.0
Titler of the mixed fatty acids prepared from the soap, min	39°C
Anhydrous soap content, min, %	85.0

<sup>A</sup> Deliveries that yield more than 10 % volatile matter shall be rejected without further test.

$W$  = net weight of material to be paid for on 8 % moisture and volatile matter basis,

$R$  = net weight of material as received, and

$L$  = percentage of loss at 105°C.

### 4. General Requirements

4.1 Chip soap shall be a soap in chip form made from soda and fats or fatty acids, or both, without rosin, as free as possible from water and all substances other than true soap. The soap shall have a light uniform color, and be free from disagreeable odor.

### 5. Chemical Composition

5.1 Chip soap shall conform to the requirements as to chemical composition prescribed in Table 1. The percentage of matter volatile at 105°C shall be calculated on the basis of the soap as received, but all other constituents shall be calculated on the basis of material containing 10 % of matter volatile at 105°C.

### 6. Methods of Sampling and Analysis

6.1 The material shall be sampled and analyzed in accordance with Test Methods D 460. The purchaser reserves the right to use any additional available information to ascertain whether the material conforms to this specification.

### 7. Packaging and Labeling

7.1 The material shall be packaged and labeled in conformity with local, state, and federal requirements.

### 8. Keyword

8.1 chip soap

