
Specification for laundry starch

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Foreword

This Ethiopian Standard has been prepared under the direction of Technical Committee for Sizing & Finishing material, Dye stuff & Pigments (TC 71) and published by the Ethiopian Standards Agency (ESA).

This Ethiopian Standard cancels and replaces ES 3336:2007(Reaffirmed 2018) *Specification for laundry starch*.

In preparing this Ethiopian Standard, references have been made to the following:

- IS 9906:1981 - *Specification for laundry starch*, published by Indian Standard Institution

Acknowledgement is made for the use of information from the above publication.

Specification for laundry starch

1 Scope

1.1 This Ethiopian Standard specifies laundry starch used as a stiffening materials in laundries.

2. REQUIREMENTS

2.1 The laundry starch shall be white, dry fine Powder free from lumps, gritty particles, visible impurities, foreign matter and any foul odour.

Note - Crystalline micro-lumps may be accepted if so specified in the contract or order.

2.2 The laundry starch shall conform to the requirements given in Table 1.

Table 1 Requirements of laundry starch

Sl No	Characteristic	Requirement	Method of test	
			Ref to ES	Appendix of this standard
1	2	3	4	5
I	Moisture, percent, Max			
II	Reaction of water extract :	13		
	a) Acidity to phenolphthalein (as H_2SO_4), percent, Max	0.1	-	A
	b) Alkalinity to methylorange (as Na_2CO_3), percent, Max	0.2	-	A
III	Ash, percent, Max	2.0	ES 986 :2004	-
IV	Starch content, percent by mass (on dry mass basis), Min	95	ES 986 :2004	-
V	Grit content, perecent by mass, Max	0.5	-	B
* Methods of test for edible starches and starch products : part II chemical methods (first revision).				

3. PACKING AND MARKING

3.1 The laundry starch shall be packed in adequate waterproof packages as stipulated in contract or order

3.2 Each package shall be marked with its net mass in g or Kg, name of the manufacturer /trade-mark and code number of pack and batch number.

4. SAMPLING

4.1 Unless otherwise agreed between the buyer and seller the procedure given in IS : 5315-1978* may be followed for sampling inspection.

4.2 The tests for requirements given in 2.1 and Table I shall be carried out on the composite sample and the lot will be considered conforming if the composite sample meets the requirements in respect of all the characteristics.

APPENDIX A (Table 1)

METHOD OF TEST FOR ACIDITY AND ALKALINITY

A-1. PROCEDURE

A-1.1 Weigh 10 g of sample, mix 200 ml of cold distilled water with it, stir well and titrate it with standard decinormal acid or alkali, using phenolphthalein as indicator. Take a further 10 g of sample and similarly treat it using methyl orange as indicator. Carry out a blank determination on 200 ml of water and make necessary correction in the titre readings.

A-2. CALCULATION

Acidity, percent

$$\text{(calculated as H}_2\text{SO}_4\text{)} = \frac{V \times N \times 0.049 \times 100}{M}$$

Alkalinity, percent

$$\text{(Calculated as Na}_2\text{CO}_3\text{)} = \frac{V \times N \times 0.053 \times 100}{M}$$

Where

V is the volume in milliliters of acid/alkali required;

N is the normality of the acid/alkali; and

M is the mass, in g, of the sample taken for test.

APPENDIX B
(Table 1)**METHOD OF TEST FOR GRIT CONTENT****B-1.PROCEDURE**

B-1.1 Take 20 g of material and weigh it accurately. Add about 100 ml of water. To this add 10 ml of 30 percent of hydrochloric acid and reflux for 21 hours to complete hydrolysis. Filter the solution when hot through G-3 Gooch crucible. Wash the residue with hot water till free from acid. Dry the residue and weigh it till constant mass is obtained.

B-2. CALCULATION

$$\text{Grit, percent, by mass} = \frac{W_2}{W_1} \times 100$$

Where

W_2 is the mass of the residue, in g; and

W_1 is the mass of the sample in g, taken for the test.

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