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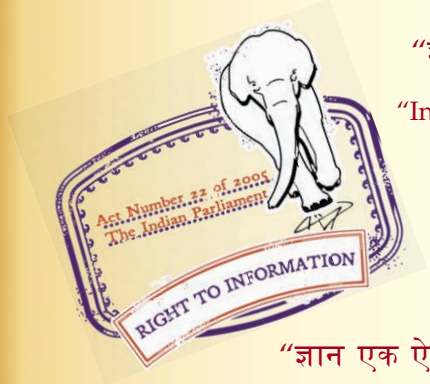
IS 8541 (1993): Floor polish for floor and wooden furniture
[CHD 23: Lac, Lac Products and Polishes]



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IS 8541 : 1993
(Reaffirmed 1999)

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(पहला पुनरीक्षण)

Indian Standard

POLISH, PASTE, FOR FLOOR AND WOODEN FURNITURE — SPECIFICATION

(First Revision)

UDC 665·921 : 648·52+684·4·041

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

May 1993

Price Group 3

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards after the draft finalized by the Polishes Sectional Committee had been approved by the Chemical Division council.

Both the polishes, paste, are used to protect wooden, marble, granite, ceramic and Mosaic floor surfaces. Regular application removes ingrained dirt and grease, imparting a shining look, makes it hygenic and guards the floor surfaces against damage by scratches and to have on the surface a fine film of protective yet indiscernible material which will considerably retard further deterioration within a reasonable time under normal conditions of use.

Both the standards, IS 8541 Floor polish, paste and IS 8542 polish for wooden furniture, paste were first published in 1977. Since the application, utility and requirements are similar for both the products, it was decided by Polishes Sectional Committee to amalgamate them into one. In this revision, flash point and keeping quality requirements have been modified.

The Committee responsible for the preparation of this standard is given at Annex C.

For the purpose of deciding whether a particular requirement of this satndard is complied with the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

POLISH, PASTE, FOR FLOOR AND WOODEN FURNITURE — SPECIFICATION

(First Revision)

1 SCOPE

This Standard prescribes requirments and methods of sampling and test for wax-solvent and wax-emulsion types of polishes, paste, for floor and wooden furnitures.

2 REFERENCES

2.1 The Indian Standards listed below are necessary adjuncts to this standard:

IS No.	*Title*
1070 : 1992	Reagent grade water (*third revision*)
1448 (Part 20) : 1982	Determination of flash point by Abel apparatus (*first revision*)
8171 : 1992	Glossary of terms relating to polishes and related materials (*second revision*)

3 TERMINOLOGY

3.1 For the purpose of this standard, the definitions given in IS 8171 : 1992 and the following shall apply.

3.1.1 *Ambient Temperature*

It is the temperature between 21 and 38°C.

4 REQUIREMENTS

4.1 Composition

The polish shall consist mainly of waxes and organic solvents with or without water.

4.1.1 The polish shall contain no ingredients which may be injurious to health under normal conditions of use.

4.2 Odour

The polish shall not have any disagreeable odour. Also it shall not leave any bad odour after application.

4.3 Consistency

The polish shall be of smooth consistency, homogenous, semi-solid mass and free from gritty material. It shall not flow at ambient temperature and shall not show appreciable shrinkage at edges. It shall have no tendency for separation of solvents or crystallization of ingredients when tested as prescribed in **A-1**.

4.4 Applicability and Polishing Property

The polish shall not crumble or dry rapidly and give gloss which shall be free from greasiness or tackiness.

4.4.1 The polish shall remove ingrained dirt and grease from the surface.

4.4.2 The polish surface shall neither be slippery nor show any resistance to easy walking.

4.4.3 The polished surface shall not take more than 10 minutes to dry.

4.5 The polish shall also comply with the requirements given in Table 1.

Table 1 Requirements for Polish, Paste for Floor and Wooden Furniture

Sl No.	Characteristic	Requirement	Method of Test, Ref to Cl No. in Annex A
(1)	(2)	(3)	(4)
i)	Non volatile matter, percent by mass	20 to 35	A-2
ii)	Softening point of NVM, °C, *Min*		A-3
	a) initial	60	
	b) final	70	
iii)	*p*H of water extract	6·0 to 9·0	A-4
iv)	Flash point (Abel), of organic solvent, °C *Min*	30	A-5
v)	Ash of NVM, percent by mass, *Max*	1·5	A-6

4.6 Keeping Quality

The polish shall comply with the requirements of this specification for a period of not less than one year from the date of manufacture when stored in its original sealed containers under cover at ambient temperature.

5 PACKING AND MARKING

5.1 Packing

5.1.1 The polish shall be supplied in sound, clean and dry rust-proof metal containers, press-lid or lever-lid type. The container shall be fitted with lid which may be closed or opened without much difficulty and which shall prevent evaporation of solvent and ingress of dirt.

5.1.2 When filled, the surface of the polish in the container shall be covered with a thin aluminium foil or waxed paper, the size of which shall be slightly bigger than the diameter of the container so that the foil overlaps or totally covers the surface of the polish and ensures tight fit when the lid is in position.

5.1.3 The sizes of containers shall preferably be 200, 400 or 1 000 g or as agreed to between the purchaser and the supplier.

5.1.4 The containers shall be packed in lots in cardboard, fibreboard or wooden boxes or as agreed to between the purchaser and the supplier. The box shall be marked with the batch number.

5.2 Marking

5.2.1 The containers shall be marked with the following:

a) Indication of the source of manufacture;

b) Net mass of the material when packed;

c) The words 'Floor and Wooden Furniture Polish';

d) Directions for use; and

e) Month and year of manufacture.

NOTE — Any other marking required under weights and measures (Packaged Commodities) Regulations 1977, may also be complied with.

6 SAMPLING

The method of drawing representative samples of the material and criterion for conformity shall be as prescribed in Annex B.

ANNEX A
(*Clause* 4)

METHODS OF TEST FOR POLISH, PASTE FOR FLOOR AND WOODEN FURNITURE

A-0 QUALITY OF REAGENTS

A-0.1 Unless specified othewise, pure chemicals and distilled water (*see* IS 1070 : 1992) shall be used in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

A-1 TEST FOR CONSISTENCY

A-1.1 Procedure

A-1.1.1 Maintain an original unopened container of polish at 10 ± 2°C for two hours. Open the lid examine as given in **A-1.1.1.1** and **A-1.1.1.2**.

A-1.1.1.1 No liquid shall separate from the semisolid mass.

A-1.1.1.2 The polish shall be soft and smooth to touch and capable of being taken up readily without crumbling.

A-1.1.2 Repeat the above series of examinations on another container maintained at a temperature of 45 ± 2°C for four hours.

A-1.1.2.1 The material shall not flow or run if the container is tilted to an angle of 30°.

A-1.1.2.2 The separation of a few drops of the solvent shall not be considered a failure to meet this test, if they are re-absorbed when the paste is brought to ambient temperature.

A-2 DETERMINATION OF NON-VOLATILE MATTER

A-2.1 Procedure

Weigh accurately about 15g of the sample in a tared flat-bottomed dish of approximately 10 cm diameter provided with a cover. Heat without the cover, on a steam-bath till the bulk of the volatile matter is volatilized off, and then in an air-oven at 115 ± 2°C for about 4 hours. Cool it in a dessicator and weigh. Repeat heating and cooling till the last two weighings differ by not more then one milligram.

Preserve the residue for test in **A-3.1** and **A-6.1**

A-2.2 Calculation

$$\text{Non-volatile matter, percent by mass} = \frac{B \times 100}{A}$$

where

B = mass, in g, of the non-volatile residue; and

A = mass, in g, of the sample taken for test.

A-3 DETERMINATION OF SOFTENING POINT OF NON-VOLATILE MATTER

A-3.1 Procedure

A-3.1.1 Place about 50 mg of residue obtained in **A-2·1** on the surface of clean mercury, preferably freshly distilled, contained in a clean and dry porcelain or silica crucible of about 25-ml capacity and exposed diameter of about 45 mm. Place the crucible on the sand bath and hang vertically the thermometer and adjust its height in such a way that the bulb of the thermometer dips in the mercury. Heat the sand bath slowly. After the temperature reaches about 55°C, raise the temperature at the rate of 1°C per minute. Shift the material on mercury with the tip of an ordinary pin after every one degree rise. Note the temperature when the material on being shifted just leaves a slight stain. Record this temperature as the initial softening point of the material.

A-3.1.2 Continue heating until the material completely loses its shape. Record this temperature as the final softening point of the nonvolatile matter.

A-4 DETERMINATION OF *p*H OF WATER EXTRACT

A-4.1 Procedure

Add about 15 g of the material to 100 ml distilled water in a beaker. Heat with stirring to about 80°C till all the wax has melted. Allow to cool to a temperature of 27 ± 2°C. Separate the aqueous layer from the wax cake and determine its *p*H using a *p*H-meter with a glass electrode.

A-5 DETERMINATION OF FLASH POINT OF ORGANIC SOLVENT

A-5.1 Procedure

Place about 400 g of the polish in a suitable distillation flask and distil it under reduced pressure so that all volatile fractions are distilled over. Separate the organic solvent from water, if present, using a separating funnel. Shake the solvent with fused calcium chloride or anhydrous magnesium sulphate. Determine the flash point of the dry solvent, as obtained, by the method prescribed in IS 1448 [P : 20] : 1982.

A-6 DETERMINATION OF ASH OF NON-VOLATILE MATTER

A-6.1 Procedure

Weigh accurately about 2 g of the non-volatile matter as obtained in **A-2.1** in a tared porcelain crucible. Ignite to constant mass, taking care that the cooling before each weighing is done in a desiccator.

A-6.2 Calculation

$$\text{Ash of non-volatile matter, percent by mass} = \frac{B \times 100}{A}$$

where

B = mass, in g, of the ash; and

A = mass, in g, of the non-volatile residue.

ANNEX B

(*Clause* 7.1)

SAMPLING OF POLISH, PASTE FOR FLOOR AND WOODEN FURNITURE

B-1 GENERAL REQUIREMENTS FOR SAMPLING

B-1.0 In drawing, preparing, storing and handling test samples, the following precautions and directions shall be observed.

B-1.1 Samples shall be taken in a protected place not exposed to damp air, dust or soot.

B-1.2 The sampling instrument shall be clean and dry when used.

B-1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples from adventitious contamination.

B-1.4 The samples shall be placed in clean, dry and airtight glass containers or other suitable containers on which the material has no action.

B-1.5 The sample containers shall be of such a size that they are almost completely filled by the sample.

B-1.6 Each sample container shall be sealed airtight after filling and marked with full details of sampling, the date of sampling and the year of manufacture of the material.

B-1.7 Samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.

B-2 SCALE OF SAMPLING

B-2.0 To determine conformity of a consignment of polish paste, for floor and wooden furniture to this specification, samples shall be selected so as to be representative of the whole consignment. In the absence of any prior agreement between the purchaser and the supplier on the mode of sampling and determining

the criteria of conformity, the following sampling scheme is recommended to serve as a guide.

B-2.1 LOT

All the containers in a single consignment of the material drawn from the same batch of manufacture and the same size shall constitute a lot. If a consignment is declared or known to consist of different batches of manufacture or of different sizes of containers, the containers belonging to the same batch and size shall be grouped together and each such group shall constitute a separate lot.

B-2.1.1 Samples shall be tested for each lot for ascertaining the conformity of the material to the requirements of this specification.

B-2.2 The number of containers (n) to be chosen from a lot shall depended upon the size of the lot (N) and shall be in accordance with Table 2.

B-2.3 These containers shall be chosen at random from the lot. In order to ensure the randomness of selection, some random number table as agreed to between the purchaser and the supplier shall be used. In case such a table is not available, the following procedure shall be adopted:

Arrange all the containers in the lot in a systematic manner and starting from any container, count them as 1, 2, 3, ... up to r and so on where r is the integral part of N/n. Every rth container thus counted shall be withdrawn to give sample for test.

Table 2 Number of Containers to be selected

(*Clause* B-2.2)

Lot Size	No. of Containers to be Selected
N	n
(1)	(2)
Up to 500	10
501 to 1 000	15
Above 1 000	20

B-3 NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

B-4 The lot shall be declared as conforming to this specification if the test results satisfy the corresponding requirements.

ANNEX C

(*Foreword*)

COMMITTEE COMPOSITION

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