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RDSO Specification for High Performance Liquid Paint Stripper			

**RDSO SPECIFICATION NO.  
M&C/PCN/115/2020**

**(Rev 1.0)**



**SPECIFICATION FOR HIGH PERFORMANCE  
LIQUID PAINT STRIPPER**

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#### 0. FOREWORD

This standard was originally adopted in the year 1996. In this revision, method for preparation of test panels has been modified. The curing temperature and duration for ageing of the paint coating has been specified.

#### 1. SCOPE

- 1.1 This specification prescribes the requirement and method of sampling and test for the material, commonly known as High Performance Liquid Paint Stripper, capable of stripping air dried or force cured film of paints including High Performance Paints.
- 1.2 The material is intended for use on vertical and horizontal surfaces of painted, varnished or lacquered wood, plaster and metal. The material shall be capable of softening and stripping multi-coats of oil based or resin based or oleoresinous varnish based paints, both air-dried and force cured including those based on Epoxy, PU resins etc. and/or powder coatings based on these resins.

**NOTE:** “Firm should comply Make in India Policy and Public Procurement (Preference to Make in India) Order-2017 under this specification” and subsequent Amendment done time to time.

#### 2. TERMINOLOGY

For the purpose of this standard apart from the Glossary of Terms given in IS 1303 -1983, Reaffirmed 2017, or its latest version and IS:101 revised versions shall apply.

#### 3. REQUIREMENT

##### 3.1 FORM AND CONDITION

The material shall be a homogenous liquid and shall be free from grit or other visible impurities (except for waxy material) and objectionable odour.

##### 3.2 COMPOSITION

The material shall be of such a composition as to meet the requirements of this standard. The material shall not contain such chemicals that will pose problem in its easy and safe handling and storage in shops/factories.

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### **33 FREEDOM FROM ALKALINITY AND ACIDITY**

When tested as prescribed in APPENDIX “A” the water extract prepared from the material shall not give red colour with phenolphthalein and/or blue colour with cango-red, when added to the portions of water separately.

### **34 NON VOLATILE MATTER**

When tested as prescribed in APPENDIX “B”, the material shall have a residue between 3.5 to 4.5, % by mass.

### **35 NON-IN FLAMMABILITY**

The material shall not support combustion when a burning match stick is applied for 5 seconds to the edge of a piece of linen cloth(100 mm x 50mm) dipped in the material, the cloth after dipping being allowed to drain for 5 minutes.

### **36 PERFORMANCE TEST**

3.6.1 The following performance test shall be carried out to evaluate the efficiency of the High Performance Liquid Paint Stripper.

3.6.2 Prepare test panels in triplicate by applying multi-coats of paints as indicated in 3.6.3 so as to get a DFT of 1000 microns, Min. and allow it to cure at  $(70\pm 2)^{\circ}\text{C}$  for 2 hrs after 15 minutes flash off time. Allow the panels to cool to room temperature and apply the paint stripper by a Brush or any other suitable means on to the prepared panels and allow it to stand for 10 minutes. The material shall be deemed to have passed the test, if it softens the film in 10 minutes to such an extent that it can easily be stripped by a scraper made of wood or non-ferrous metal.

#### **3.6.3 PREPARATION OF TEST PANELS**

Apply the following painting system on MS Panels (150 mm x 100 mm X 1.25 mm) allowing sufficient drying time interval between the coats.

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SN	Painting System	No. of Coats	DFT, microns, min.	Total DFT, microns
<b>SYSTEM- 1</b>				
1.	Epoxy Zinc Phosphate Primer, Two Pack to M&C/PCN/102 /2020, Rev 1.0, air dry for 8 hrs.	1	60	60
2.	Epoxy Mastic Filler, Two Pack to M&C/PCN/112/2020, Rev 1.0, air dry for 8 hrs before application of next coat.	3	300/coat	900
3.	Epoxy Surfacer, Two Pack to M&C/PCN/113/2020, Rev 1.0, air dry for 8 hrs.	1	40	40
4.	PU Finishing Enamel, Two Pack to M&C/PCN/100/2018, air dry for 8 hrs before application of next coat.	2	40/coat	80
5.			<b>Total:</b>	<b>1080</b>

SN	Painting System	No. of Coats	DFT, microns, min.	Total DFT, microns
<b>SYSTEM- II</b>				
1.	Red Oxide Zinc Chrome, Priming to IS 2074 (Part -1): 2015 or its latest version, air dry for 12 hrs.	1	25	25
2.	Knifing Stopper (Putty) to IS 5083: 1988 Reaffirmed-2019 (Second Revision), air dry for 8 hrs before application of next coat	4	250/coat	1000
3.	Synthetic Enamel Exterior, Finishing to IS 8662: 2004 (Second Revision) Reaffirmed-2019, of appropriate IS/RAL colour shade, air dry for 12 Hrs, before application of next coat.	2	15/coat	30
4.			<b>Total:</b>	<b>1055</b>

### 3.7 KEEPING PROPERTIES

When stored in original sealed containers, under normal temperatures, the material shall be suitable for satisfactory performance, for a period of 12 Months, from the date of its manufacture.

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#### **4. PACKING**

- 41 The material shall be suitably packed in closed containers of 5 and 20 litres capacity or as agreed to between of the purchaser and the supplier and shall be subject to the provisions of the laws of the land.
- 42 All containers in which the material is stored shall be clean, dry and leak-proof. The containers shall be protected from light and stored in a cool and dry place.

#### **43 MARKING**

Each container shall be marked with the following legend:

- ( a ) Name of the Material
- ( b ) Name of the Manufacturer and/or Trade Mark, if any.
- ( c ) Quantity of the Material
- ( d ) Month and year of  
Manufacture ( e ) Batch/lot No.

#### **5. SAMPLING**

- 5.1 Representative samples of the material shall be drawn as prescribed in IS: 101, Part-1/Sec-1, 1986, Reaffirmed 2017.

#### **6. CRITERIA FOR CONFORMITY**

A lot shall be declared as conforming to the requirements of this standard, if the test results of composite sample satisfy the requirements prescribed under Clause 3

### **APPENDIX A**

#### **Test for Freedom from Alkalinity and Acidity**

##### **A.1 REAGENTS**

A.1.1 Phenolphthalein indicator-Dissolve 0.19gm of Phenolphthalein in 100ml of 60% rectified spirit.

A.1.2 Congo Red indicator-Dissolve 0.19gm Congo Red in 10ml of rectified spirit conformity to IS: 323-1959 or its latest version and dilute to 100 ml with water.

##### **A.2 PROCEDURE**

A.2.1 Prepare water extract of the material shaking it with twice its volume of freshly boiled and cooled water. Test the freedom from alkalinity and acidity by adding phenolphthalein indicator and Congo red indicator to separate portions of extracts.

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## **APPENDIX B**

### **Test for Non Volatile Matter**

#### **A-1 PROCEDURE**

**A.11** Weigh accurately about 4gm of the material by difference from a stoppered tube in a previously weighed flat bottomed dish 75mm in diameter keep the dish on water bath for 1 hour and then place it in an air oven maintained at 105-110C for about 30 minutes. Cool it in a Desicator & weigh. Repeat the heating, cooling & weighing till a constant mass is obtained

**A.12** Report the residue as percent by mass, of the material taken for the test.