

RESEARCH DESIGNS & STANDARD ORGANISATION

MINISTRY OF RAILWAYS

METALLURGICAL & CHEMICAL DIRECTORATE

CORROSION ENGG. LAB.

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TITLE: Master List of Specifications

IS: Specifications (101 Series)

S.No.	Date of Amendment	Page No.	Version	Reasons of amendments
1	25-02-2010	(i)01 of 02 , (ii)02 of 03 and (iii)03 of 03	01	List of IS specifications (101 Series) updated

S. No.	Prepared by	Approved by	Issued by
Signature			
	ARO/Chem. (PTCEL)	Dir. (M&C)	DD(M&C)

Distribution

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ARO (ISO)

ARO (PTCEL)

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02

TITLE : MASTER LIST OF SPECIFICATIONS**IS: SPECIFICATION (101-Series)**

S. No.	Spec. No.	Year	Title
1.	IS:101 IS:101	1964	Methods of test for Ready-Mixed Paints & Enamels Methods of Sampling & Test for Paints, varnishes and related products.
PART-1 Tests on Liquid Paints(General & Physical)			
2.	Sec. 1	1986 (First reprint in sept 1995)	Sampling
3.	Sec. 2	1987 (First reprint in aug 1995)	Preliminary Examination and preparation of samples for testing
4.	Sec. 3	1986(reaffirmed in 2007)	Preparation of Panels
5.	Sec. 4	1987 (reaffirmed in 2004)	Brushing Test
6.	Sec. 5	1989 (reaffirmed in 2004)	Consistency
7.	Sec. 6	1987 (reaffirmed in 2004)	Flash Point
8.	Sec. 7	1987 (reaffirmed in 2004)	Mass per ten litres
PART-1 Tests on Liquid Paints(Chemical Examination)			
9.	Sec. 1	1988 (reaffirmed in 2004)	Water Content
10.	Sec. 2	1986 (reaffirmed in 2004)	Volatile Matter
PART-3 Tests on Paint Film Formation			
11.	Sec.1	1986 (reaffirmed in 2004)	Drying Time
12.	Sec. 2	1989 (reaffirmed in 2004)	Film Thickness
13.	Sec.4	1987 (reaffirmed in 2004)	Finish
14.	Sec.5	1987 (reaffirmed in 2004)	Fineness of Grind
PART-4 Optical Test			
15.	Sec.1	1988 (reaffirmed in 2004)	Opacity
16.	Sec.2	1989 (reaffirmed in 2004)	Colour
17.	Sec.3	1988 (reaffirmed in 2004)	Light Fastness Test
18.	Sec.4	1988 (reaffirmed in 2007)	Gloss
PART-5 Mechanical Test on Paint Films			
19.	Sec.1	1988 (reaffirmed in 2004)	Hardness Test
20.	Sec.2	1988 (reaffirmed in 2004)	Flexibility & Adhesion Test
21.	Sec.3	1988 (reaffirmed in 2004)	Impact Resistance (Falling Ball Test)
22.	Sec.4	1988 (reaffirmed in 2005)	Print Free Test
PART – 6 Durability Tests			
23.	Sec.1	1988 (reaffirmed in 2005)	Resistance To Humidity Under Condition of Condensation
24.	Sec.2	1989 (reaffirmed in 2004)	Keeping Properties
25.	Sec.3	1990 (reaffirmed in 2005)	Moisture Vapour Permeability

TITLE: MASTER LIST OF SPECIFICATIONS

IS: SPECIFICATION (101-Series)

S. No.	Spec. No.	Year	Title
26.	Sec.4	1991 (reaffirmed in 2007)	Degradation of Coating
27.	Sec. 5	1997 (reaffirmed in 2007)	Accelerated Weathering Test.
PART-7 Environmental Tests on Paint Films			
28.	Sec.1	1989 (reaffirmed in 2004)	Resistance to Water
29.	Sec.2	1990 (reaffirmed in 2005)	Resistance to Liquid
30.	Sec.3	1990 (reaffirmed in 2005)	Resistance to Heat
31.	Sec.4	1990 (reaffirmed in 2007)	Resistance to Bleeding of Pigments
S. No.	Spec. No.	Year	Title
PART-8 Tests for Pigments & other Solids			
32.	Sec.1	1989 (reaffirmed in 2004)	Residue on sieve
33.	Sec.2	1990 (reaffirmed in 2007)	Pigments and Non Volatile Matter
34.	Sec.3	1993 (reaffirmed in 2004)	Ash Content
35.	Sec.4	1993 (reaffirmed in 2004)	Phthalic Anhydride Content
36.	Sec.5	1993 (reaffirmed in 2004)	Lead Restriction Test
37.	Sec.6	1993 (reaffirmed in 2004)	Volume solid
PART-9 Tests For Lacquers and Varnish			
38.	Sec.1	1993 (reaffirmed in 2004)	Acid value
39.	Sec.2	1993 (reaffirmed in 2004)	Rosin test

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Effective from
25-02-2010

MCM/1705

TITLE: Master List of Specifications

IS: Specifications

S.No.	Date of Amendment	Page No.	Version	Reasons of amendments
1	25-02-2010	(i)01 of 02 , (ii)02 of 03 and (iii)03 of 03	01	List of IS specifications updated

S. No.	Prepared by	Approved by	Issued by
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ARO (ISO)

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ARO (PTCEL)

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TITLE: Master List of Specifications (IS: Specifications)

S.No	Specification No. and Year	Title
1.	IS:5-2007	Specification for Colours for Ready Mixed Paints and Enamels.
2.	IS: 44-1991	Iron oxide pigments for paints specification.
2.	IS:104-1979	Specification for Ready Mixed Paints, Brushing, Zinc Chrome, Priming.
3.	IS:110-1983	Specification for Ready Mixed Paints, Brushing, Grey Filler, for Enamels, for use over Primers.
4.	IS:117-1964	Specification for Ready Mixed Paints, Brushing, Finishing, Exterior Semi-gloss, for general purposes, to Indian Standard Colours.
5.	IS:133-2004	Specification for Enamel, Interior-(a) Undercoating (b) Finishing
6.	IS:137-65	R/M Paint, Brushing matt or egg shell flat finishing interior to Indian standard colour as required
7.	IS:142-80	R/M Paint, Exterior petrol Resisting ,Stoving
8.	IS:158-1981	Specification for Ready Mixed Paints, Brushing, Bituminous ,Black, Lead Free, Acid, Alkali and Heat Resisting
9.	IS:162-50	R/M paint, brushing, fire resisting, silicate type, for use on wood, colour as required.
10.	iS:163-78	R/M paint, dipping ,fire resisting
11.	IS:289-63	Aluminum paste for paint.
12.	IS:341-73	Black Japan types A, B & C.
13.	IS:354(Pt.II)-86	Method of sampling and test for resins for paints(special test methods for alkyd resins).
14.	IS:524-83	Varnish ,finishing, exterior ,synthetic air drying.
15.	IS:642-1963	Specification for Varnish Medium for Aluminum Paint.
16.	IS:2074-1992	Specification for Ready Mixed Paints, Air Drying, Red Oxide Zinc Chrome, Priming.
17.	IS:2075-79	R/M Paint Stoving, Red Oxide Zinc Chrome Priming.
18.	IS:2339-1963	Specification for Aluminum Paint for General Purposes in Dual Container
19.	IS: 2932-1993	Specification for enamel, synthetic, exterior-(a) undercoating (b) Finishing
20.	IS:5083-1988	Specification for knifing stopper.
21.	IS:5666-1970	Specification for Etch (pretreatment) primer
22.	IS:6947(Part-II & part-III) -1975	Methods of estimation of Composite pigments in oil pastes, Ready mixed paints & enamels.

TITLE: Master List of Specifications

IS: Specifications

S.No	Specification No. and Year	Title
22.	IS:8662-2004	Specification for enamel, synthetic, exterior-(a) undercoating (b) finishing for railway coaches.
23.	IS:8982-1991	Specification for R/M paint, finishing, air drying for war equipment.
24.	IS:9162-1979	Method of tests for epoxy resin hardener and epoxy resin composition for floor topping.
25.	IS:9862-1981	Specification for R/M paints, brushing, Bituminous, Black Lead free, Acid, Alkali, Water & Chlorine resisting.
26.	IS:13515-1992	Specification for rust converters
27.	IS:13607-1992	Specification for R/M paints, finishing general purpose, synthetic.

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25-02-2010

MCM/1706

TITLE: Master List of Specifications

IRS and RDSO Specifications

S.No.	Date of Amendment	Page No.	Version	Reasons of amendments
1	25-02-2010	(i)01 of 02 , (ii)02 of 03 and (iii)03 of 03	01	List of IRS and RDSO specifications updated

S. No.	Prepared by	Approved by	Issued by
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02

TITLE: Master List of Specifications

IRS and RDSO Specifications

Sl. No.	Specification No.	Name of the Specification
1.	M&C/PCN/100-09	Specification for Total PU System, Two Pack.
2.	M&C/PCN/101-07	Specification for Liquid Cleaning Composition for Exterior of Railway Coaches.
3.	M&C/PCN/102-09	Specification for Epoxy-Zinc Phosphate Primer, Two Pack.
4.	M&C/PCN/103-06	Specification for Epoxy-MIO, Two Pack.
5.	M&C/PCN/104-07	Specification for Epoxy Chemical Resistant Pack, Two Pack.
6.	M&C/PCN/105-06	Specification for Epoxy Coal Tar Paint, Two Pack.
7.	M&C/PCN/106-09	Specification for Rust Stabilizer.
8.	M&C/PCN/107-06	Specification for Epoxy Stearate Water Sealing Compound, Two Pack.
9.	M&C/PCN/108-06	Specification for PU Coal Tar.
10.	M&C/PCN/109-09	Specification for PU Red Oxide Enamel, Two Pack
11.	M&C/PCN/110-06	Specification for PU Aluminium, Three Pack.
12.	M&C/PCN/111-06	Specification for High Build Epoxy, Two Pack.
13.	M&C/PCN/112-06	Specification for Epoxy Mastic Filler, Two Pack.
14.	M&C/PCN/113-06	Specification for Epoxy Surfacer, Two Pack.
15.	M&C/PCN/115-07	Specification for High Performance Liquid Paint Stripper.

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IRS and RDSO Specifications

16.	M&C/PCN/116/2010	Specification for Cleaning of Copper Tubes & Fins of Condenser of AC Coaches.
17.	M&C/PCN/117-07	Specification for Epoxy based Knifing Stopper Putty.
18.	M&C/PCN/118-07	Specification for Cleaning Compound for Cleaning of Tank Wagon.
19.	M&C/PCN/120-05	Specification for enamel interior (a)Under coating (b)Finishing with fire retardant properties
20.	M&C/PCN/122-06	Specification for R/M Paint Red oxide(ISC:446),Brushing ,Finishing, Glossy for general purposes.
21.	M&C/PCN/123-06	Specification for High Performance Anticorrosion Epoxy coating (Two pack)
22.	M&C/PCN/124-07	Specification for Liquid & Power composition for neutralisation and safe disposal of pyrophoric substances of LPG & BTPN (Petrol) tank wagons.
23.	M&C/PCN/125-09	Specification for zinc film galvanization to impart corrosion protection.
24.	M&C/PCN/126-08	Specification for bipolar concrete penetrating corrosion inhibiting admixture to protect embedded steel reinforcement in concrete from corrosion.
25.	M&C/PCN/127-09	Specification for Antigrffiti clear coat for the exterior painting of Railway coaches, Diesel and electric locomotives.
26.	M&C/PCN/128-09	Specification for full Nanotech enabled pigmented base metal primer and clear Antigrffiti coating system for exterior painting of Railway SS-301LN & 409M coaches.
27.	IRS P-30/07	Specification for Supply of Bituminous Emulsion.