

MM0004 Technical Specification for Surface Treatment and Painting Metallic Surfaces – Appendix I

Painting Systems

Painting system 1

Field of application: Dry areas indoors. Paper machine dry sections, Paper conversion, Turbine plant, Warehouses and workshops, power boilers, Electrical rooms, offices.

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Purity Sa 2½ Roughness medium (EN ISO 12944-4, ISO 8501-1, ISO 8503-1)	N/A
1 st layer PC	EP(Zn(R)) Zinc rich Epoxy primer	60...80
2 nd layer IC	EP two-component epoxy	80
3 rd layer CC	EP Two-component epoxy covering paint	80
Total NDFT		240
Number of layers and layer thicknesses based on paint system EN ISO 12944-5 / C3.09 PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		

Painting system 2

Field of application: Outdoor steel structures. Wood handling (chip storages, conveyors).

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Purity Sa 2½ Roughness medium (EN ISO 12944-4, ISO 8501-1, ISO 8503-1)	N/A
1 st layer PC	EP(Zn(R)) Zinc rich Epoxy primer	60...80
2 nd layer IC	EP two-component epoxy	80
3 rd layer 1.CC	PUR Polyurethane	80
Total NDFT		240
Number of layers and layer thicknesses based on paint system EN ISO 12944-5 / C4.06 PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		

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Painting system 3

Field of application: Wet and condensate water areas. Indoors and outdoors. Wet end Paper machine and Drying machine, Recovery boiler, Demi-water plant, Wood handling (debarking and wet areas), Pumping stations, effluent treatment and water treatment, Insulated carbon steel piping, tanks and equipment if insulation can get wet (temperature load max 120°C).

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Purity Sa 2½ Roughness medium (EN ISO 12944-4, ISO 8501-1, ISO 8503-1)	N/A
1 st layer PC	EP(Zn(R)) Zinc rich Epoxy primer	60...80
2 nd layer IC	EP two-component epoxy	80
3 rd layer 1.CC	EP Two-component epoxy covering paint	80
4 th layer 2.CC	PUR Polyurethane	80
Total NDFT		300
Number of layers and layer thicknesses based on paint system EN ISO 12944-5 / C4.07 PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		

Painting system 4

Field of application: Hard chemical and/or mechanical loading. Indoors and outdoors. Fibre line, chlorine dioxide plant, chemical plants, Evaporation, White liquor plant, Oil areas, hydraulic power packs.

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Purity Sa 2½ Roughness medium (EN ISO 12944-4, ISO 8501-1, ISO 8503-1)	N/A
1 st layer PC	EP(Zn(R)) Zinc rich Epoxy primer	60...80
2 nd layer IC	EP two-component epoxy	80
3 rd layer 1.CC	EP Two-component epoxy covering paint	80
4 th layer 2.CC	PUR Polyurethane	80
Total NDFT		320
Number of layers and layer thicknesses based on paint system EN ISO 12944-5 / C5.08 PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		

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Painting system 5

Field of application: Insulated carbon steel. Piping, tanks and equipment if insulation cannot get wet. Temperature load max 120°C.

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Purity Sa 2½ Roughness medium (EN ISO 12944-4, ISO 8501-1, ISO 8503-1)	N/A
1 st layer	EP two-component epoxy	60...120
2 nd layer CC	EP Two-component epoxy covering paint	80
	Total NDFT	160
Number of layers and layer thicknesses based on paint system EN ISO 12944-5 / C2.05 PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		

Painting system 6

Field of application: Insulated carbon steel. Piping, tanks and equipment if insulation cannot get wet. Temperature load 120-300°C.

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Purity Sa 2½ Roughness medium (EN ISO 12944-4, ISO 8501-1, ISO 8503-1)	N/A
1 layer	Temperature resistant inorganic zinc silicate paint	75
	Total NDFT	75
PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		

Painting system 7

Field of application: Insulated carbon steel. Piping, tanks and equipment if insulation cannot get wet. Temperature load over 300°C.

Shall be designed case by case.

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Painting system 8

Field of application: Galvanized surfaces.

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Hot water jet + sweep blast-cleaning before painting	N/A
1 st layer PC	EP Epoxy primer	60...80
2 nd layer CC	EP Two-component epoxy covering paint	100
3 rd layer CC	PUR Polyurethane	100
Total NDFT		280
Number of layers and layer thicknesses based on paint system EN ISO 12944-5 / G5.05 PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		

Painting system 9

Field of application: Structures under water. Structures buried in soil.

Layer	Painting material type	NDFT dry layer thickness (µm)
Surface Preparation	Purity Sa 2½ Roughness medium (EN ISO 12944-4, ISO 8501-1, ISO 8503-1)	N/A
1 st layer PC	EP Epoxy primer	80
2-4 layers CC	EP Two-component epoxy covering paint	540
Total NDFT		620
Number of layers and layer thicknesses based on paint system EN ISO 12944-5 / I.04 PC = Primary Coating IC = Intermediate Coating CC = Cover Coating		