SAINT-GOBAIN GYPSUM	EQUIPMENT SPECIFICATION SHEET		
			REV
PROJECT TITLE	**All SAINT-GOBAIN Plants**	PROJECT NO. **1500**	**D**
DESIGN CAPACITY			
PROCESS AREA	**All Process Areas**	DOC. NO.	
EQUIPMENT ITEM	**Paint Application Method**	SHEET 1 of 6	

1. EQUIPMENT

GENERAL EQUIPMENT ITEMS – INCLUDING BOARD HANDLING EQUIPMENT (OTHER THAN SPECIFIC EQUIPMENT ITEMS LISTED BELOW)

These specifications are for the preparation, priming and top coating for all metal components for general equipment items within the plasterboard production process.

The execution of the preparation is based on EN ISO 12 944, part 4 (Protection against corrosion of steel structures by means of coating systems) and the Technical sheets of the manufacturer of the approved coating materials.

Approved priming coating materials

(This is a typical specification – suppliers can offer an alternative which they must demonstrate is to a comparable standard)

GRONOLUX synthetic resin metal priming, article 050-73550, grey, approx. RAL 7035, with zinc phosphate

GRONOLUX Universal dilution, article 20-V-21

Manufacturer:

Gronenbacher paint factory

Gropper u. Viandt GmbH

Hinter den Garten 5

87730 Bad Gronenbach

Phone 08334/9846-0 Fax 08334/9846-50

The over-painting possibility with 2-component top coats has to be guaranteed.

Approved top coating materials

(This is a typical specification – suppliers can offer an alternative which they must demonstrate is to a comparable standard)

GRONOLUX synthetic resin one-coat paint, article colour shade 150 with zinc phosphate.

GRONODUR PUR hardener, article 250-H-051 (mixture 10:1 parts by weight)

GRONOLUX Universal dilution, article 20-V-21

Manufacturer:

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Cleaning and preparation of the surface (according to EN ISO 12 944 / part 4)

Before application of the priming, the surface has to be cleaned from all inherent layers (rust, cinder, rolling scale etc) and all foreign layers (dust, oil, grease, non-supporting coatings, weld splatter, metal chips, markings by means of chalk or felt pens as well as all other foreign substances). If sand blasting is prescribed as preparative treatment, the standard degree of purity SA 21/2, metallically pure, has to be observed, i.e. cinder, rust and non-supporting old coatings have been removed in so far, that residues on the surface remain only visible as slight shades due to tinted pores. After cleaning, no more chalk marks etc. may be visible.

Application procedure

All coating materials have to be applied by means of spraying procedure (air, airless or air-mix spraying) as wet painting. The required dry paint coatings amount for the priming to 40 – 60 microns and for the top coat 40 – 60 microns. This leads to a required total dry film coat of 100 microns +/- 20 microns. Inaccessible surfaces may also be coated by means of a brush and / or roller if necessary.

Quality Assurance

The coated parts have to be checked by qualified staff, concerning the following defects;

a. Dirt within the coating (dust particles, spraying mist, surface failures etc)

b. Dry coat thickness

c. Scratches

Final top colour as per Saint-Gobain Equipment Paint Colours Specification (note motors to be painted to the same colour specification as the machinery).

SPECIFIC EQUIPMENT ITEMS - MIXER, VIBRATION TABLE AND EXTRUDER ONLY

Cleaning and preparation of the surface (according to EN ISO 12 944 / part 4)

Before application of the priming, the surface has to be cleaned from all inherent layers (rust, cinder, rolling scale etc) and all foreign layers (dust, oil, grease, non-supporting coatings, weld splatter, metal chips, markings by means of chalk or felt pens as well as all other foreign substances). Sand blasting is required as preparative treatment, the standard degree of purity SA 21/2, metallically pure, has to be observed, i.e. cinder, rust and non-supporting old coatings have been removed in so far, that residues on the surface remain only visible as slight shades due to tinted pores. After cleaning, no more chalk marks etc. may be visible.

Application

(This is a typical specification – suppliers can offer an alternative which they must demonstrate is to a comparable standard)

One coat of Epigrip C400V2 Epoxy Zinc Phosphate Primer / Buildcoat (or equivalent) 75 microns (dry film thickness)

One coat Resistex C750V2 Special Finish (or equivalent) 50 microns (dry film thickness)

Epigrip and Resistex are products supplied by

Leigh's Paints.

Tower Works

Kestor Sheet

Bolton, UK

tel, +44 (0) 1204 521771

www.leighspaints.co.uk

Final top colour as per Saint-Gobain Equipment Paint Colours Specification (note motors to be painted to the same colour specification as the machinery).

SPECIFIC EQUIPMENT ITEMS – DRYER – HIGH TEMPERATURE PARTS ONLY

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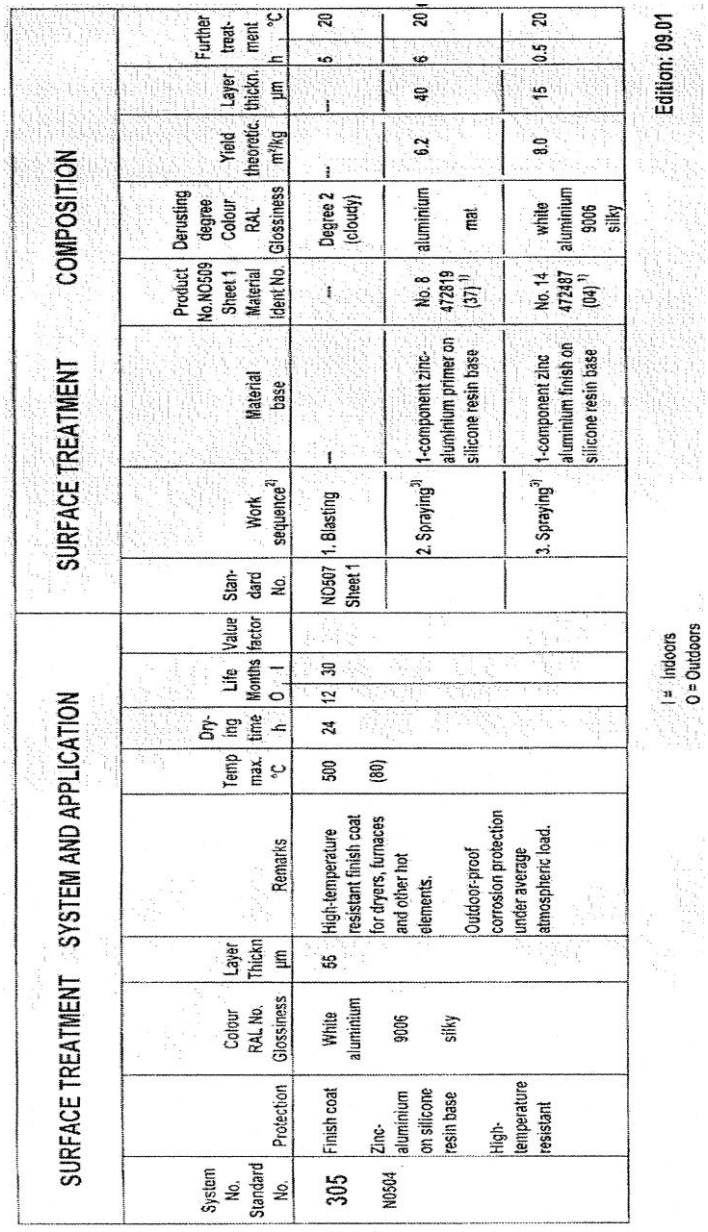

SURFACE TREATMENT SYSTEM AND APPLICATION														SURFACE TREATMENT COMPOSITION										
System No. Standard No.	Protection	Colour RAL No. Glossiness	Layer Thickn. µm	Remarks	Temp max. °C	Dry-ing time h	Life Months O I	Value factor	Stan-dard No.	Work sequence[2]	Material base	Product No.NO509 Sheet 1 Material Ident No.	Derusting degree Colour RAL Glossiness	Yield theoretic. m²/kg	Layer thickn. µm	Further treat-ment h	°C
305 NO504	Finish coat Zinc-aluminium on silicone resin base	White aluminium 9006 silky	55	High-temperature resistant finish coat for dryers, furnaces and other hot elements. Outdoor-proof corrosion protection under average atmospheric load.	500 (80)	24	12 30		NO507 Sheet 1	1. Blasting	—	—	Degree 2 (cloudy)	—	—	5	20
										2. Spraying[3]	1-component zinc-aluminium primer on silicone resin base	No. 8 472819 (37)[1]	aluminium mat	6.2	40	16	20
	High-temperature resistant									3. Spraying[3]	1-component zinc aluminium finish on silicone resin base	No. 14 472487 (04)[1]	white aluminium 9006 silky	8.0	15	0.5	20

I = Indoors
O = Outdoors

Edition: 09.01

1) Former designation to 7.000.140

2) Prior to applying each coat make sure that the surface to be treated is dry and absolutely clean – even if this is not expressly stated.

3) For small parts: also painting or dipping

4) The derusting method to be chosen depends on the conditions and degree of rusting of the surface to be treated. Small parts and surfaces with a low degree of rusting are to be derusted by hand or machine (scraping, brushing, sanding etc). For reasons of economy, large surfaces with a high degree of rusting must always be treated by BLASTING so that the specified degree of derusting is reached.

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SPECIFIC EQUIPMENT ITEMS – DRYER – OTHER PARTS ONLY

SURFACE TREATMENT SYSTEM AND APPLICATION																SURFACE TREATMENT COMPOSITION									
System No. Standard No.	Protection	Colour RAL No. Glossiness	Layer Thickn. µm	Remarks	Temp max. °C	Dry-ing time h	Life Months O	I	Value factor	Stan-dard No.	Work sequence[2]	Material base	Product No.NO509 Sheet 1 Material Ident No.	Derusting degree Colour RAL Glossiness	Yield theoretic. m²/kg	Layer thickn. µm	Further treat-ment h	°C
303 NO504	Finish coat on alkyd resin base	Reseda green 6011 satin-finish	80	Same as system 302	120	24	12	36	12.5 (3.9)	NO507 Sheet 1	1. Blasting	---	---	Degree 2 (cloudy)	---	---	6	20
				With optimized surface treatment							2. Spraying[3]	1-component synthetic resin primer on selected alkyd resin	No. 5 722398 (02) [1]	Reddish brown 3009 mat	7.7	40	0.5	20
											3. Spraying[3]	1-component finish on alkyd resin base	No. 15 722504 (03) [1]	Reseda green 6011 satin-finish	9.0	40	4	20

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3) For small parts: also painting or dipping

4) The derusting method to be chosen depends on the conditions and degree of rusting of the surface to be treated. Small parts and surfaces with a low degree of rusting are to be derusted by hand or machine (scraping, brushing, sanding etc). For reasons of economy, large surfaces with a high degree of rusting must always be treated by BLASTING so that the specified degree of derusting is reached.

2. STEELWORK

Preparation

A high standard of preparation is insisted upon. Steelwork should be washed down if necessary. All surface contamination, loose rust, flaking paint and original mill scale must be removed. Where considered necessary, general grit blasting or localised pencil jet grit blasting is to be carried out. Where this is not considered to be necessary or practical, manual preparation using a wire brush (brass), scraper (beryllium copper), and /or sandpaper will be accepted. Manual preparation must be as thorough as possible - brush down to remove surface dust etc - remove oil or grease with white spirit - wipe dry with clean cloths.

Where manual preparation has been employed, all prepared surfaces must be treated with Jenolite (or similar).

On grit blasted surfaces where Jenolite is not used, it is imperative that there should be no delay before priming - prime within one hour.

Spot priming or general priming

Spot prime all bare areas where local preparation has been carried out with one application of zinc phosphate primer (by brush) or apply one overall application of zinc phosphate primer by brush / roller where a full preparation has been carried out by general grit blasting.

Intermediate

Paint primed areas with one application of Micaceous Iron Oxide by brush / roller.

Undercoat

One application of alkyd - based oil undercoat by brush / roller.

Finish Coat

One application of alkyd gloss enamel by brush / roller.

Final colour as per SAINT GOBAIN GYPSUM Engineering Specification – Paint Colours

3. GRP VESSELS

Preparation

Clean down and decrease. Lightly abrade the surface and wash down.

Application

Prime all areas with a moisture-cured urethane. Allow 72 hours to cure. Apply a moisture-cured gloss finish. Up to 2 coats may be required.

Final top colour as per Saint-Gobain Equipment Paint Colours Specification (note motors to be painted to the same colour specification as the machinery).

4. PIPEWORK

General notes

All pipework shall be painted with one undercoat and one topcoat on a suitable primer coat with the exception of stainless steel pipework and plastic/PVC piping that must not be painted.

All surfaces for painting shall be prepared to give a clean, dry surface, free from dust, rust, and weld splatter, grease or other foreign matter.

Carbon steel pipework that is to be insulated shall be painted with a primer coat - zinc phosphate primer.

Insulated pipework shall be painted in accordance with the specification below.

The paint manufacturer's instructions shall be observed at all times.

Uninsulated carbon steel pipework

1 coat high build zinc phosphate primer - dry film thickness 75 microns

1 coat high build micaceous iron oxide - dry film thickness 55 microns

1 coat gloss - dry film thickness 25 microns

Top coat in accordance with the colour specification below

Insulated carbon and insulated stainless steel pipework

The insulation should be sized and then coated according to the following specification.

1 coat high build micaceous iron oxide - dry film thickness 25 microns

1 coat gloss - dry film thickness 25 microns

Top coat in accordance with the colour specification below

Uninsulated stainless steel pipework

Surfaces shall be cleaned to provide a pleasing appearance but no protective finish is required.

Identification of pipelines

Pipe contents shall be fully identified by the basic identification colour, fluid name and direction of flow arrow.

The basic identification colour as per Saint-Gobain Equipment Paint Colours Specification (This specification could be subject to change dependent upon local country requirements)

For pipelines used for the pneumatic conveying of bulk powder materials the pipeline shall be colour coded to RAL 1015. The bulk powder material within the line should be identified on a label on the pipe and the direction of flow arrow should be applied.

For carbon steel lines and the outer casings of lagged lines all of the exterior of the pipeline should be painted.

For stainless steel and plastic/PVC lines the identification colour should be marked by the application of a band (100mm wide). This can be painted or applied by the means of pre-coloured sticky labels. These bands and labels shall be placed at junctions, valves, service appliances, bulkheads, wall penetrations and any other place where identification is necessary. On straight runs of pipework, identification shall be no more than 10 m apart.