

Data sheet: C1.8

## CHROMAPREP®

### Pre-painted hot-dip galvanised steel sheet

#### General description

CHROMAPREP® is ArcelorMittal Steel South Africa's registered trade name for hot-dip galvanised steel sheet, coated with a high quality, flexible and corrosion inhibiting chrome free primer on both sides of the sheet on ArcelorMittal Steel South Africa's continuous coil coating line. The substrate is chemically cleaned and treated to ensure good adhesion of the chrome free primer before oven curing at elevated temperatures. The primer surface is suitable for over-coating with most locally available paint systems.

CHROMAPREP® can be used for interior applications such as office furniture, appliances, air ducting, ceiling systems, wall panels, kitchen cupboards and bread tins and also for exterior applications such as bus body panels, garage doors, trailers, industrial shipping containers and other applications that require corrosion resistance of the steel sheet before application of the final coat.

CHROMAPREP® is available on Galvanised Sheet (file reference C1.1) with either a Z200 or Z275 flattened minimised spangle finish.

#### Paint system properties

Table 1. Typical primer coating properties

Property	Typical Values
Dry film thickness	4 - 6 µm
Heat resistance	Maximum 120 °C
Resistance to water based detergents	Excellent
Resistance to mild solvents <sup>1</sup>	Fair
Elasticity <sup>2</sup>	1T
UV resistance <sup>3</sup>	Fair

#### Notes:

1. Sensitive to common lacquer thinners i.e. chlorinated or aromatic hydrocarbons and ketones but resistant to mineral turpentine, solvent naphtha, methylated spirits and paraffins.
2. There will be no visible cracking of the coat or loss of adhesion when bent around a mandrel with a diameter equal to the thickness of the sheet.
3. As is the case with most universal primer coats, CHROMAPREP® is sensitive to ultraviolet radiation and should not be exposed to direct sunlight. If the coating is to be exposed to sunlight (ultraviolet radiation) then it must be over-painted within seven days.

#### For further information, contact:

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## Processing

Standard equipment can be used for cutting and forming CHROMAPREP<sup>®</sup>, provided the machinery is kept clean and well maintained. The normal methods needed for steel sheet fabrication can be applied which include mild pressing, mild drawing, shearing, slitting and stamping.

## Welding

Conventional welding techniques are not advisable but stud, spot and seam welding processes may be applied in concealed areas.

For applications where weldability is a specific requirement, the use of electro-galvanised sheet (available on enquiry) could be considered, refer to the data sheet: Electro-galvanised Sheet (file reference EG1).

## Cleaning before painting

Surfaces should be cleaned by removing surface contaminants with mineral turpentine, solvent naphtha or methylated spirits, followed by a warm water detergent wash and a clean water rinse. Customers are advised to ensure that thinners or adhesives used are compatible with CHROMAPREP<sup>®</sup>. The CHROMAPREP<sup>®</sup> primer coat is slightly under cured to assure good bonding of subsequent top coats. The use of strong solvents will thus attack the primer coat, and lead to premature peeling of the paint.

Common lacquer thinners such as chlorinated hydrocarbons or ketones (MEK) should also not be used for cleaning purposes, because it will result in adhesion problems with primer coat.

## Painting

The required Top Coat paint finish can be applied by normal spray, airless spray or brushing techniques.

Amongst current industrial products, the following paint systems can be applied to CHROMAPREP<sup>®</sup>: alkyds, vinyls, acrylics, polyesters, powder coatings, stoving enamels, acrylic polymers, epoxies and polyurethanes.

## Quality assurance

A quality assurance system that complies with SANS 9001 is in operation throughout the manufacturing process, and the galvanised substrate used for ArcelorMittal Steel South Africa's Chromadek products conform to the requirements of both SABS ISO 3575 and SABS ISO 4998.

## Supply conditions

CHROMAPREP<sup>®</sup> is supplied in terms Price List 145 and ArcelorMetal Steel South Africa's General Conditions of Sale.

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