

**ArcelorMittal** South Africa



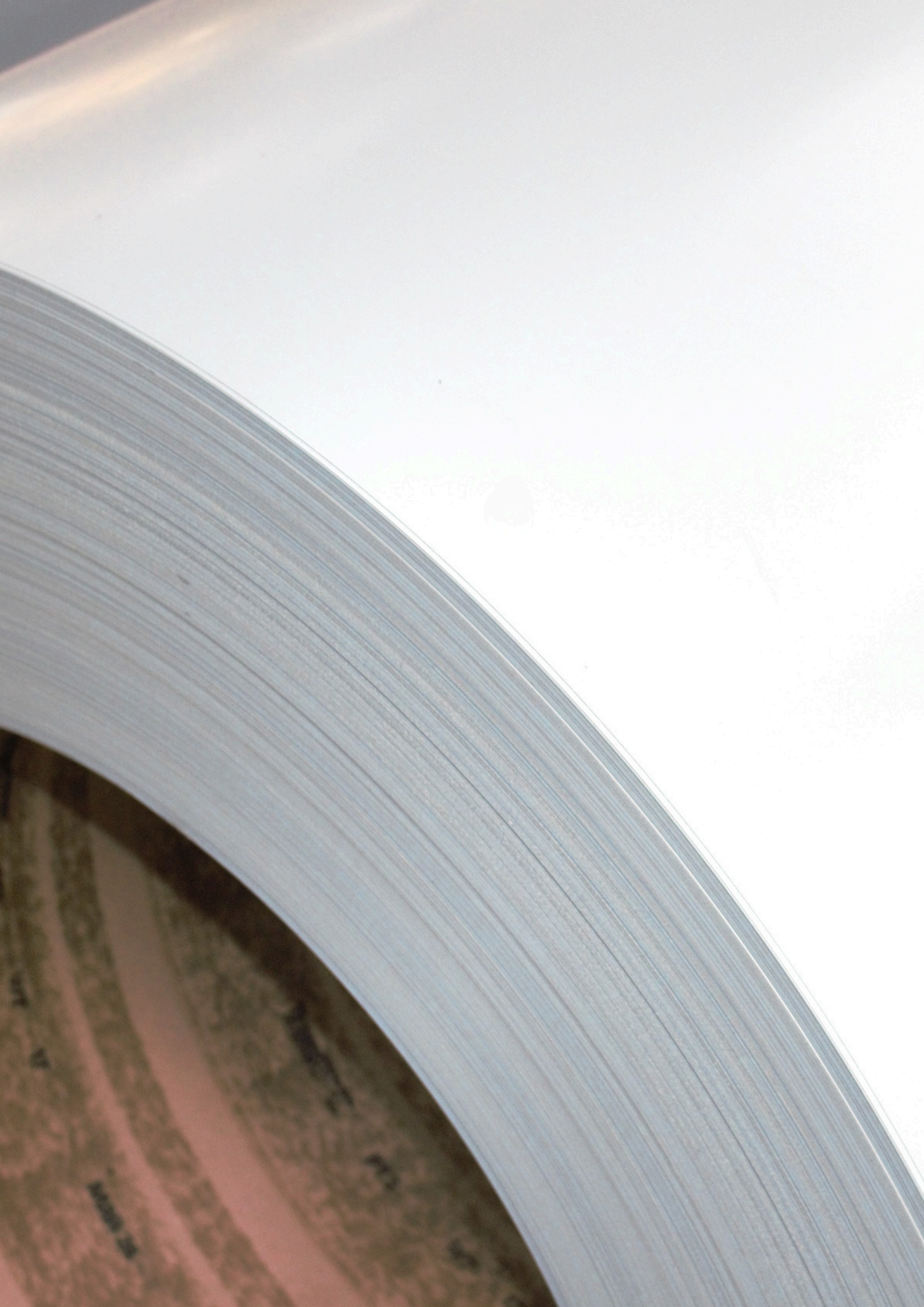
**ArcelorMittal**

Chromadek® & Chromadek Ultim®



The preferred local roofing & cladding solution in Sub Saharan Africa.





# About Us

Worth 95 years of experience, ArcelorMittal South Africa is the largest steel producer in sub-Saharan Africa. It boasts 6 production parks across 4 provinces in South Africa, with an installed crude steel capacity exceeding 5 million tonnes. With a local employment base of about 10 000 people, we produce the broad spectrum of primary flat and long steel products, in a wide variety of grades and dimensions and with compliance to international specifications. Our products are used across over 20 market segments, predominantly in the African region but also in Europe, Asia and the Americas.

ArcelorMittal South Africa forms part of the ArcelorMittal Group, producing about 70 million tonnes of crude steel, transacting in over 155 countries and employing over 150 thousand people globally. The group is the largest by innovation and a leading producer in the Americas, Europe and Africa. The group is leader in all major global markets including Automotive, Construction, household appliance and packaging, with leading R&D and technology, as well as sizeable captive supplies of raw materials and outstanding distribution networks. Through this association, ArcelorMittal South Africa has access to world-class research and development, best practice processes, extensive procurement contracts and international market leverage to ensure the company remains at the cutting edge of the international steel industry.

## Our Purpose

Championing Africa's industrial ambitions through sustainable steel.

## Our Values



Success starts with training, empowering and keeping all our employees safe.

Local leadership through visionary thinking and willingness to challenge the status quo and be open to doing things differently.



Quality is essential to our competitive edge.

Sustainability through our strive and actions to remaining competitive in the world of tomorrow.



# Our Footprint



## Pretoria Works

- Small section mill
- Focus on smaller long steel profiles for the windows and fencing industries

***On care and maintenance***



## ArcelorMittal Rail and Structures (AMRAS)

- Heavy section rolling mill
- Heavy gauge mainline rail
- Focus on universal column and beams



## Vanderbijlpark Works

- Two blast furnaces; three basic oxygen furnaces
- Slabs, plates
- Hot-rolled coil, cold-rolled coil, electrogalvanized steel, colour coated steel



## Vereeniging Works

- Electric Arc Furnaces
- Long steel operation focusing on speciality steel products
- Seamless tube mill
- Forge



## Newcastle Works

- One blast furnace; Two ladle furnaces
- Three basic oxygen furnaces
- RH Degasser
- Wire rod, structural Steel, reinforcing Steel
- Mining and Siding Rails



## Saldanha Works

- Corex, Midrex continuous process
- Hot rolled coil

***On care and maintenance***



## Commercial Coke and By - Products

- Pretoria, Newcastle & Vanderbijlpark
- Commercial coke production for Ferro-Alloy industry; metallurgical and steel by-products beneficiation, including coal tar



## ArcelorMittal South Africa The home of Chromadek®

Chromadek® and Chromadek Ultim® has been used for more than **25 years** and is desired by architects, profilers and property developers for its **versatile design** possibilities and functionality which is utilised in various steel building **award-winning projects**.

At ArcelorMittal South Africa, the home of Chromadek® we are proud to announce that **exhaustive** tests are done on Chromadek® to ensure it meets the **requirements** that will stand the **test of time**. Chromadek® derives its structural strength from its **steel core**, coated with a **metallic zinc** coating also known as the galvanised layer. This layer ensures that both the structural integrity and steel core are **preserved** for functionality.

Once the longevity of the steel core is secured by the metallic zinc coating, Chromadek® is **aesthetically enhanced**. This, linked to the African Heritage colour range, makes Chromadek® an instantly recognised colour-coated steel roofing option - an **excellent choice in style**.

At first glance, roofing paint systems appear similar but each has qualities and properties that set it apart more so with Chromadek®. When you see a Chromadek® roof it's designed in a paint system that's **unique** and specifically developed for **African climatic conditions**.

The **uniqueness** of Chromadek® resides in the paint coating which is **oven cured** at elevated temperatures, Through enhancements made to the paint system the following can be realised:

- **Improved gloss** and **colour retention** ensuring **longevity**.
- A **heat reflective colour range** that's **energy efficient**.

As the paint system is applied under **controlled** conditions on a **continuous** paint line the result is exceptional paint adhesion and **corrosion resistance** **unequaled** by any hand painted roofing and **unmatched** by alternative roofing materials.

Chromadek® provides the **assurance** of colour coated steel roofing and cladding that carries a warranty. The paint system is designed to provide **resistance** to **fading, blistering** and **chalking** taking into account fluctuation from the natural elements of heat, cold, hail and UV rays to which Chromadek® is exposed.



## Coating Configuration

Chromadek® is available as either **standard Chromadek®** or **Chromadek Ultim®** designed for exposure and use in different atmospheric conditions. **Chromadek Ultim®** is a **superior** roofing product for **coastal applications** as the secret lies within the primer.

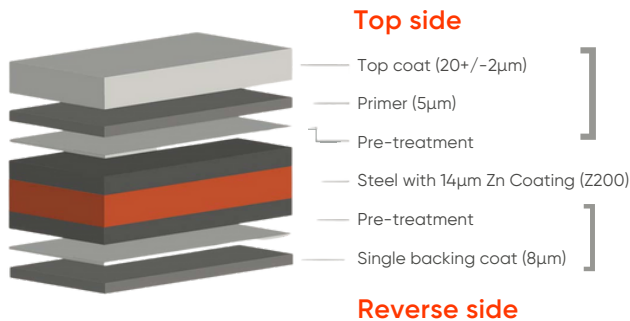
Chromadek Ultim® has specifically been developed for **heavy industrial** or **marine conditions** i.e applications in C4/C5 (High corrosion risk) regions.

Chromadek Ultim® has a Z275 hot dipped galvanised substrate and a total coating (top and bottom layer) of 275g/m<sup>2</sup> zinc, which is 75g/m<sup>2</sup> more zinc than Chromadek® offering **better corrosion resistance**. It is pre-primed with a **chrome-free** primer that is 15µm thicker than standard Chromadek®.

Chromadek Ultim® is suitable **400m** from the **salt marine high watermark**, and or **heavy industrial areas**.

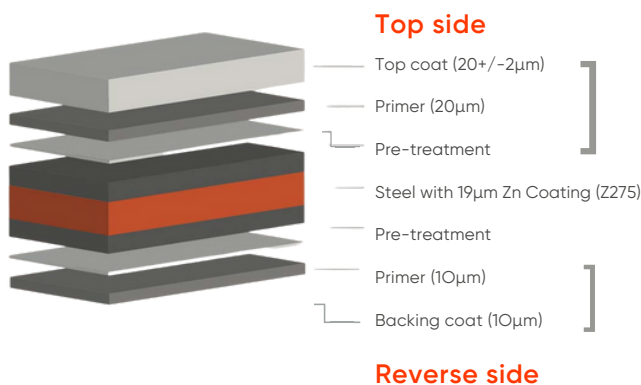
## This comparison illustrates the layered composition of the two different products

### Chromadek®



- Is intended for use **under rural, Industrial** (mildly chemically polluted) or **moderate marine conditions**.
- Comprises a **Z200** hot-dipped galvanised substrate pre-primed with a primer (Dry film thickness (DFT) of 5µm) and finished with a final paint coat (DFT OF 18 - 22µm) on the top surface.
- A **single backing coat** (DFT of 8µm) is normally applied to the reverse side of the sheet.

### Chromadek Ultim®



- Is intended for **heavy industrial** or **marine conditions**.
- Comprises a **Z275** hot-dipped galvanised substrate, pre-primed with a chrome free primer (DFT of 18 - 22µm) on the top surface, giving a total dry film thickness of 38 - 42µm.
- The **reverse surface** is coated with a 10µm **corrosion resistant chrome free** primer and a 10µm top surface paint system.

## We offer the following benefits when utilising our colour coated product range:



## Versatility and aesthetically pleasing

Chromadek® offers **great versatility** for roofing and cladding applications. South African architects use Chromadek® in a variety of roofing and cladding projects ranging from churches, shopping malls, factories, warehouses and airports to luxury eye-catching homes and housing estates.

Chromadek® is exceptionally **colourfast** with warranties given on application. The Chromadek® African Heritage Colour Range consists of **14** exciting **colours** that captures the essence of the African environment and reflects the continent's unique colours and hues, allowing designers complete freedom of expression in roofing and cladding.

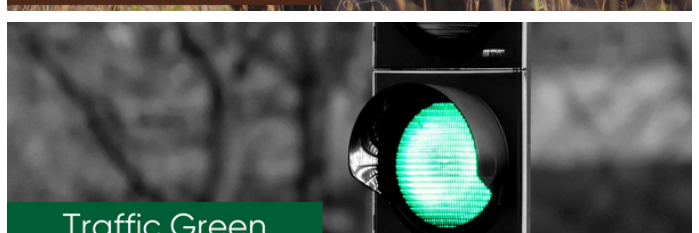
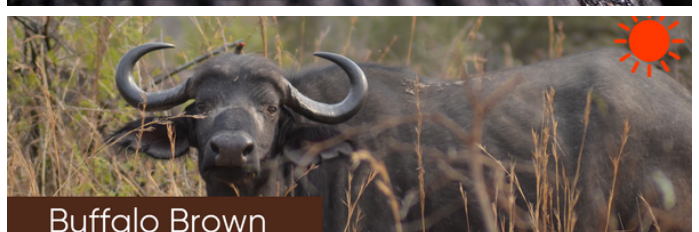
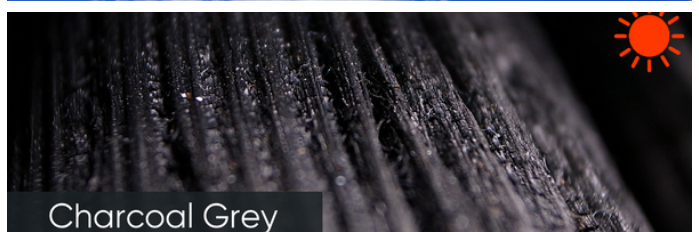
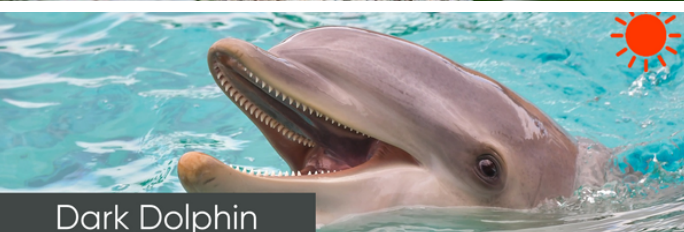
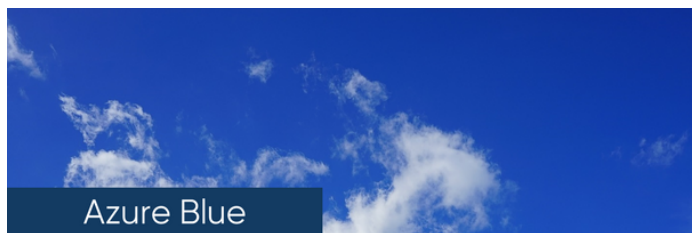
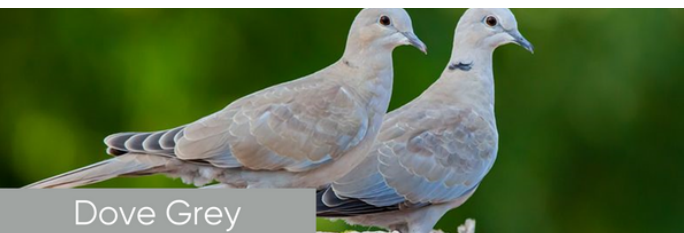


### Why Heat Reflective?

- Increased durability
- Increased gloss retention
- Improved colour stability (less fading)
- Sustainable film integrity
- Reduced heat transfer into buildings

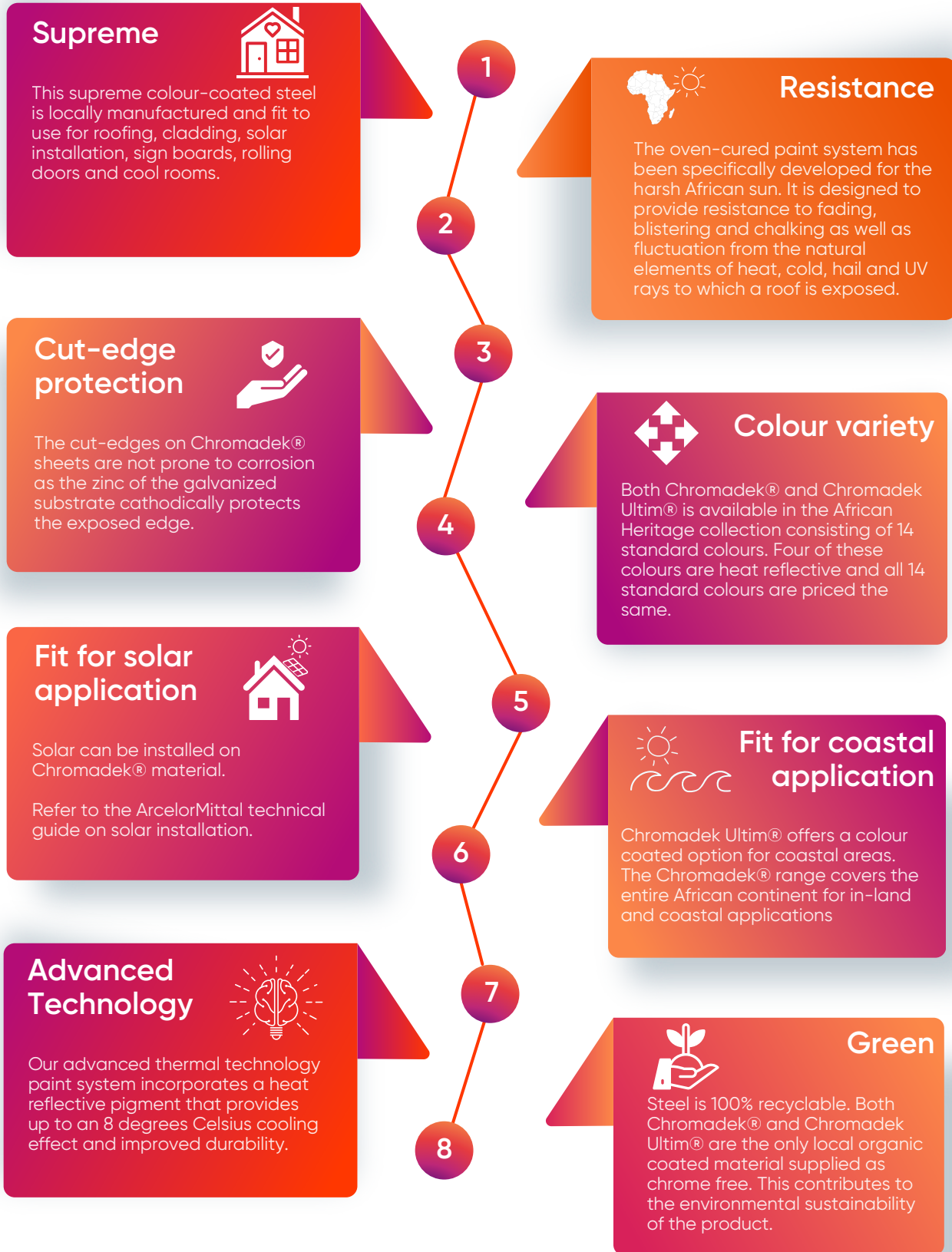


# The Chromadek® colour range



• Colour on print is not the same as actual colour depicted, ask for a true colour steel sample

# The Chromadek® or Chromadek Ultim® ?

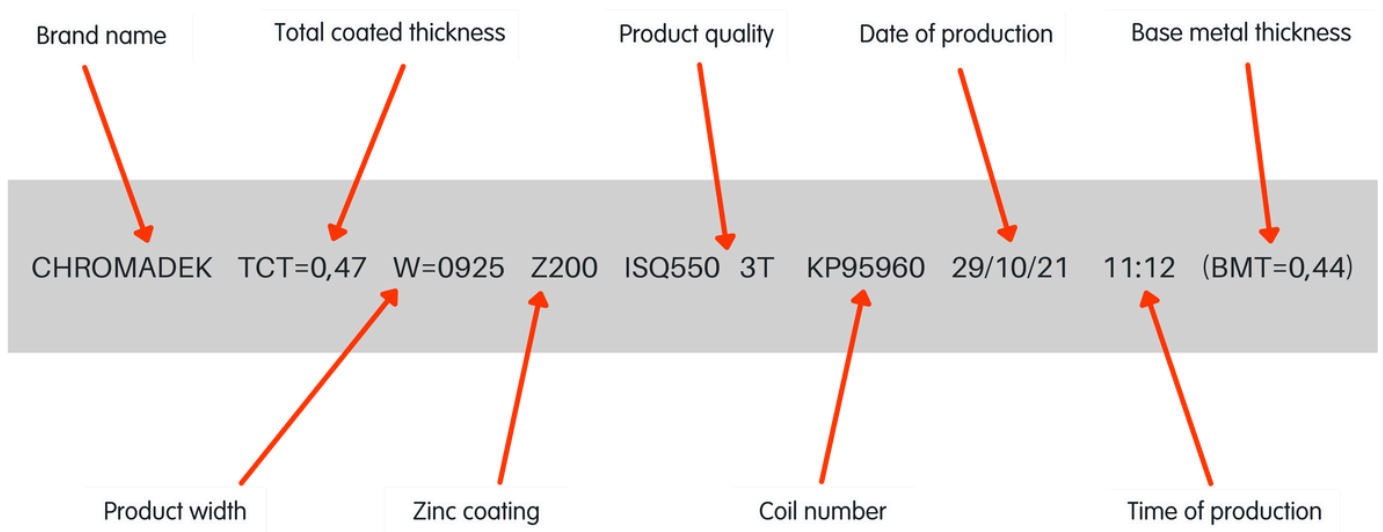


## How (and where) to achieve a warranty

As the manufacturer of Chromadek® colour coated organic painted coil, ArcelorMittal South Africa takes pride in backing our brand by issuing a warranty relevant to the installation location and product suitability.

The most **important** information ArcelorMittal South Africa will need to issue a warranty, is the **coil number**. As soon as you have traced it, be sure to supply it together with the product installation location to the relevant next in line.

There are **identification markings** that are printed on the **backing coat**. For your convenience, it is **printed every two meters** which makes it easier to spot when trying to establish its authenticity.



**As a rule, we recommend that the contracting parties follow the method of communication from end user back to manufacturer. For a warranty:**

### If you are:

### Consult with:

A Home owner



Building professional/  
Roofing contractor

An Architect



Building professional/  
Roofing contractor

Building professional / Roofing contractor



Your Supplier/  
Roofing profiler

A Building material supplier



The Profiling organisation

A Profiling organisation



Your manufacturer

## How (and where) to achieve a warranty

Upon issuing a warranty, we offer a complimentary **on-site inspection** to ensure that the necessary installation- and product handling requirements are met.

Use the below table to estimate what warranty you will achieve:

### Chromadek® (Coating thickness-40µm)

Type of environment	Rural Unpolluted	Urban Inland	Marine/Heavy Industrial	
Kilometers (km) from high water mark		>5km	1-5km*	>400m-1km*
Region code	C1/2	C3	C4/5	C4/5
Corrosion risk	Low	Medium	High	High
Weathering & non-peeling warranty	10 years	10 years	NR	NG
Non-perforation warranty	20 years	20 years	NR	NG








### Chromadek Ultim® (Coating thickness-60µm)

Type of environment	Rural Unpolluted	Urban Inland	Marine/Heavy Industrial	
Kilometers (km) from high water mark		>5km	1-5km*	>400m-1km*
Region code	C1/2	C3	C4/5	C4/5
Corrosion risk	Low	Medium	High	High
Weathering & non-peeling warranty	10 years	10 years	10 years	10 years
Non-perforation warranty	30 years	30 years	20 years	15 years

Note: Terms & Conditions apply to warranty

\* Refer to datasheet C1.4 pg. 7-8 for warranty details.  
 NR- Not recommended, but can be considered with manufacturers agreement  
 NG- No Guarantee

## Use this roof Installation checklist when installing your next roof.

-  The **minimum** permitted roof pitch is **two degrees**. Flat roofs become problematic because of static water.
-  Ensure the use of the **correct coating type** suitable for the **right application and location**.
-  **Avoid damage** to the paint coating where sheets overlaps or -ends.
-  Ensure that the **correct class-, quality- and type of fastener** is used.
-  Schedule **regular maintenance** as it is recommended to clean and wash roofs regularly.
-  **Avoid sparks** from angle grinder when cutting roof sheets.
-  **Remove all metal deposits** after construction.

## How to handle and protect your product

To **prevent** wet storage corrosion, ensure nested packs, coils or sheets remain **exposed** to continuous freely circulating air. The protective nature of both the zinc and paint coating may be seriously impaired when exposed to wet conditions for extended periods of time in the absence of air.

When this happens, the zinc surface becomes susceptible to corrosion during prolonged storage without the necessary precautions.

**Wet storage corrosion**, often referred to "white rust" or "wet-storage stain" on galvanised sheeting, **may cause discoloration** of the paint film. This can affect the **expected** maintenance-free life of the sheeting **unless addressed** at an **early** stage.



## Here's how we help to preserve your Chromadek® purchase

If galvanised and colour coated coil or profiled sheets are not required for immediate use, coils or packs of sheets must be **stored off the ground** on site under **properly designed cover**, protected from wind-driven rain.

Plastic tarpaulins that completely envelop packs of sheets or coils should **not** be used, because a sudden drop in ambient temperature may result in the **formation** of condensation or **water** vapour which can easily be drawn in between nested sheeting by capillary action.



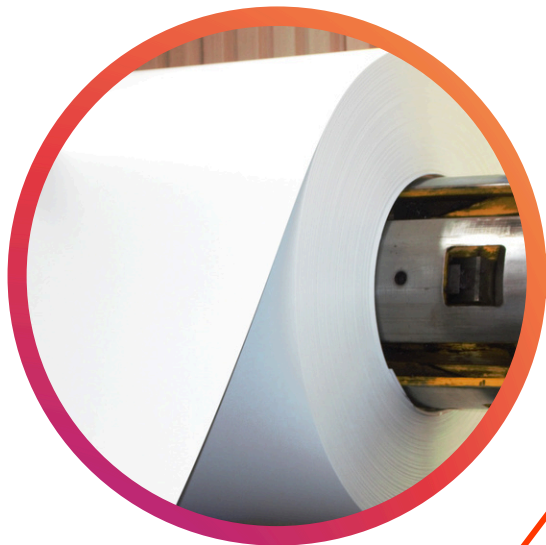
# How to specify Chromadek® for your next project

For a **comprehensive** specification, the following need to be covered:

- Roofing profile **type** (Roof sheeting profile i.e standard or concealed fix system)
- Brand **colour** name
- **Coating** type (Z200 or Z275)
- Preferred **thickness**

## Example specification:

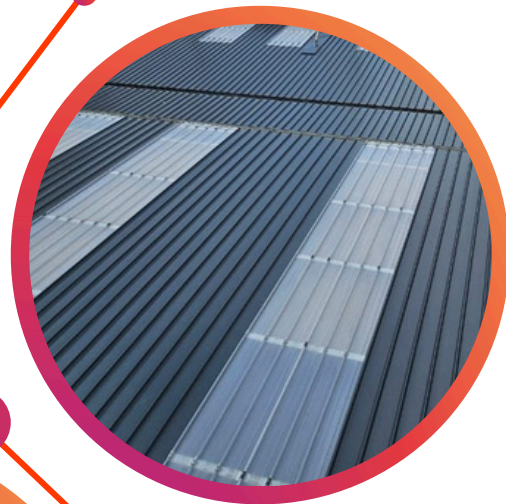
Concealed fix system, Dark Dolphin, Z200, ISQ550, 0.47mm, Chromadek®



## Brand Colour Name

Use the specific name that you require.

By simply specifying the heat reflective colour by name, the technology is standard to the colour.



## Preferred Thickness

Choose between 0.47mm, 0.50mm, 0.53mm, 0.58mm or 0.80mm.

Note: This is optional to add - For more information please visit [chromadek.arcelormittalsa.com](http://chromadek.arcelormittalsa.com)



## Coating Type

Standard Z200 Chromadek® or Z275 Chromadek Ultim®.

The building location will determine the correct option.



Please make contact with  
our team for any information and  
when specifying chromadek for your projects

e-mail us:

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or call:

Tel: +27 16 889 2422 or +27 16 889 7629



[chromadek.arcelormittalsa.com](http://chromadek.arcelormittalsa.com)



[arcelormittalsa.com/products](http://arcelormittalsa.com/products)

This addendum document shall be reviewed in  
conjunction with the following:

- Warranty and claim procedure (C1.5)
- Colour chart and technical performance (C1.9)
- The guide for handling and protection (C1.10)
- Heat reflective benefits chart (C1.11)

Make the right choice when it comes to your roofing & cladding  
solutions



ArcelorMittal

