

ArcelorMittal South Africa
Chromadek[®]



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

Chromadek[®]
Chromadek Ultim[®]
for Solar Applications

Addendum document to the chromadek main brochure

Version 23.08



ArcelorMittal South Africa Chromadek® for Solar Applications

ArcelorMittal South Africa continually strives towards innovation, development and sustainability. Our Chromadek® and Chromadek Ultim® are suitable solutions for **Solar applications**. This brochure further depicts the product, benefits, offering and warranty application for **Solar projects**.

Chromadek® is a **registered trademark** within ArcelorMittal South Africa's products range. It is comprised of **12 standard colours** and **2 non-standard colours**, supplied with a **superior quality** coating.

The Chromadek® range is offered as standard **Chromadek®** and **Chromadek Ultim®**, with the main difference found in the zinc and primer coating thicknesses.

Chromadek® positions itself as a **suitable partner** for roof mounted **Solar applications**. The brand is highly recognised in the Sub-Saharan African market for its long-standing track record in delivering **high performing** and **durable** roofing solutions.

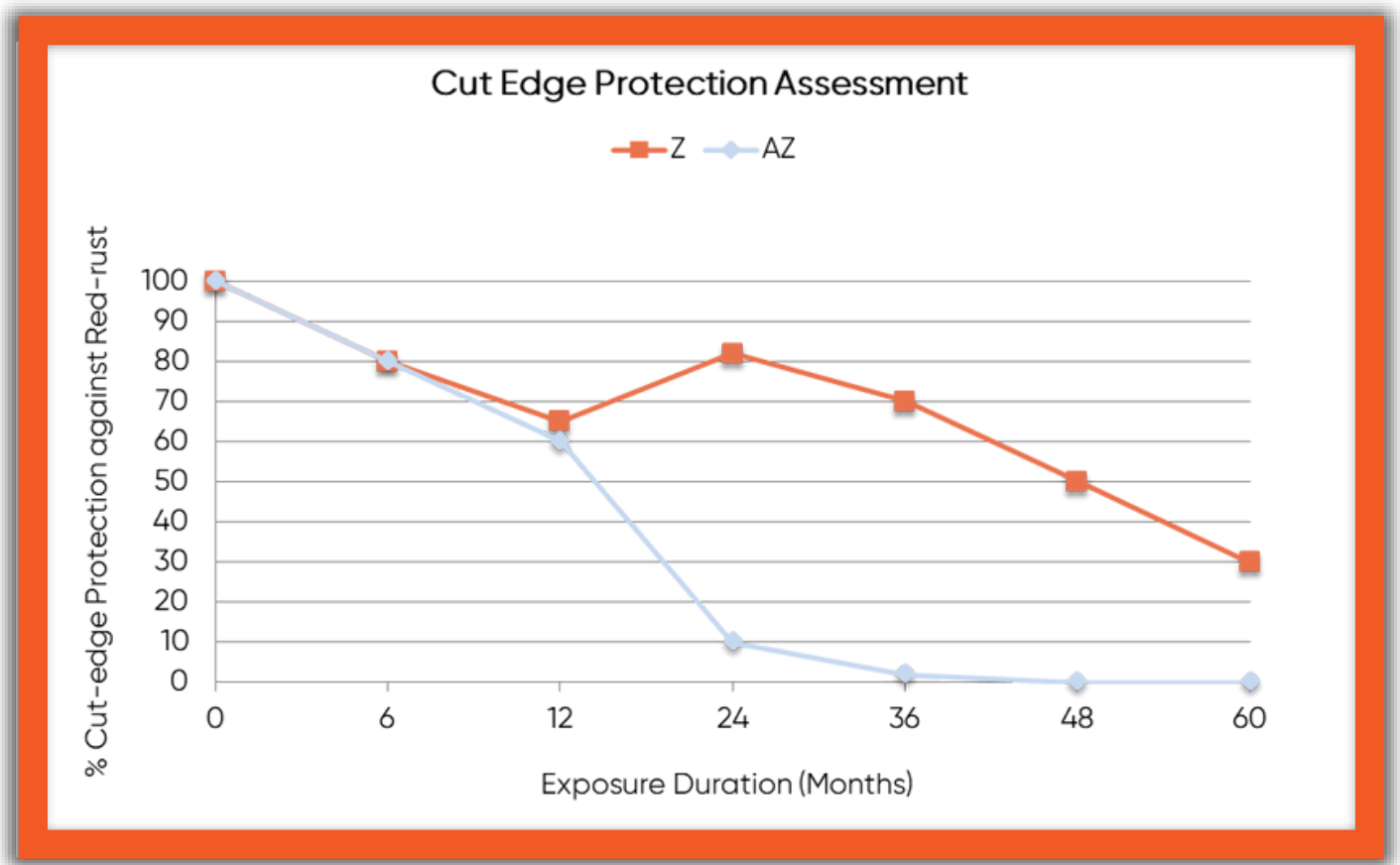
We offer the following benefits when using our colour coated product range:



Chromadek® and Chromadek Ultim® provide advanced cut edge protection

Chromadek® and Chromadek Ultim® are produced with a galvanised (zinc) substrate that offers enhanced cut-edge protection (self-sacrificing properties).

The zinc (sacrificial anode) of the galvanised substrate cathodically protects the exposed steel in areas where the coating has been damaged (scratches, cut edges, holes), the cut-edge is protected by the dissolution of the adjacent zinc coating, which is corroded preferentially rather than the steel. This allows superior coating performance over Al-Zn coatings (higher % Zn in the galvanised coating provides longer self-healing life span).



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Why choose Chromadek® or Chromadek Ultim® for Solar?

Durability

Chromadek® boasts excellent **durability** suitable for a **longer** solar life span expectancy as well as a tested **Scratch Resistance** property.

Compatibility

Chromadek® is **compatible** with most materials used in **solar** installations.

100% Recyclable

Environmentally **sustainable**, fully **recyclable** thereby reducing the impact of waste on the planet.

Environmentally Friendly

The only **local** organic coated material supplied as chrome-free, achieved by the **elimination** of **chromate** in the pre-treatment and primer used in the Chromadek paint system.

Heat Reflective

An improved **Total Solar Reflectance** is achieved through advanced pigment technology in the paint system which means **less energy** consumption.

Light Weight

Lighter and stronger than other conventional roofing solutions and thus **reduces** the load on the supporting structures while remaining **rigid** enough to withstand loading from the solar panels as well as wind forces and ensuring **excellent support** for solar installations.



Considerations and maintenance tips when installing Photovoltaic (PV) panels on a Chromadek® and Chromadek Ultim® roof

Cleaning

Due to the **accumulation** of dirt, salt and other contaminants, the area directly **below** the PV panels are prone to accelerated corrosion. It is recommended to **clean** these unwashed areas. When cleaning this area use **fresh clean water** either with a **soft sponge**, a **soft nylon-bristled brush**, or water blasting at pressures **not exceeding** 20MPa. It is recommended that cleaning takes place every **3 months** at coastal areas and every **6 months** elsewhere. Coordinate the cleaning schedule with the PV panels cleaning to coincide with it. **Ensure** that **all residue** that are washed off, gets washed off completely from the Chromadek® and Chromadek Ultim® roof sheeting to prevent corrosion risk.

Roof Clearance

Ensure **adequate clearance** between the PV panels and your Chromadek® and Chromadek Ultim® roof sheeting. Sufficient clearance allows for **self-cleaning**, **prevents** debris from building up, provides easy access for inspection and maintenance to take place and promotes **air movement** for drying. Additionally, it can benefit the performance of the PV panels by preventing temperature-related issues.

Rainwater Collection

If you collect rain water from the roof for domestic use, verify with the PV system supplier that the desired water quality will not be negatively affected.

Cables

Do not position electrical cables **directly on the roof** as it can lead to the accumulation of dirt and contaminants. It is recommended to affix the cables to the PV panel support structure.

Comparable Life Service

Ensure that the fasteners and brackets used for PV panel installation have a **service life comparable** to the expected performance of your Chromadek® and Chromadek Ultim® roof. Compatibility is important to maintain the **integrity** of the entire system.

Swarf Removal

During the installation of PV panels, any swarf (metal filings or shavings) generated should be **removed** daily to **prevent** potential damage to the roof and **corrosion** risks.

Electrical Earthing

Ensure proper earthing of the PV system. **Inadequate earthing** can cause stray currents that may increase **corrosion risk** through electrolysis.

Protecting the Roof during Installation and Maintenance

Exercise caution when working on Chromadek® and Chromadek Ultim® roofs. **Foot traffic** can dent, scuff or **scratch** the roof sheeting that can impact the **longevity** of the product. Follow the recommendations provided by the roofing manufacturer for your specific sheeting profile to **avoid** foot traffic damage. Rectify any dents to prevent water ponding which can lead to corrosion or water ingress.



Guidelines for installing Solar on Chromadek®

Ensure the correct and compatible selection of material (Refer to: Data Sheet C1.4 on the chromadek.arcelormittalsa.com website).

Ensure that **Roof Water tightness** is maintained while taking special care that **no damage** occurs to the material during installation and adequate sealing at overlaps is achieved.

Ensure all debris are **removed** after installation to prevent potential corrosive reactions to develop.

Roof pitch to be in line with **recommended building standards as prescribed in SANS 10400-L:2020, Edition 4**. Correct Roof pitch aids in allowing for good run off of water and dirt.

By **implementing** these measures and following the correct maintenance practices, you can **maximize** the performance and **longevity** of your Chromadek® and Chromadek Ultim® roof while ensuring the **efficient operation** of the PV panel system.

Warranty for Solar Application

Photovoltaic panels are **well suited** to be erected upon Chromadek® with the peace of mind of knowing that the offering comes with an **aesthetic and functional useful life warranty** in the natural elements.

For full warranty details, please refer to the Data Sheet C1.5 on the chromadek.arcelormittalsa.com website.

ArceloMittal South Africa confirms the **suitability** of Chromadek® as a partner of choice for **solar application** and the Global imperative of **Going Green**.







ArcelorMittal

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chromadek.arcelormittalsa.com



arcelormittalsa.com/products

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

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

- Chromadek main brochure
- 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)

