trueECO

KH100Z

KH100Z Three-Component Zinc-Rich Room Temperature Color Nano Paint

KH100Z is a three-component, room temperature-curing, zinc-rich nano paint developed by TrueEco using unique synthesis techniques. Combining nano-structured organic and inorganic nano-ceramic polymers, this coating cures rapidly at room temperature through a hardener-triggered polymerization reaction.

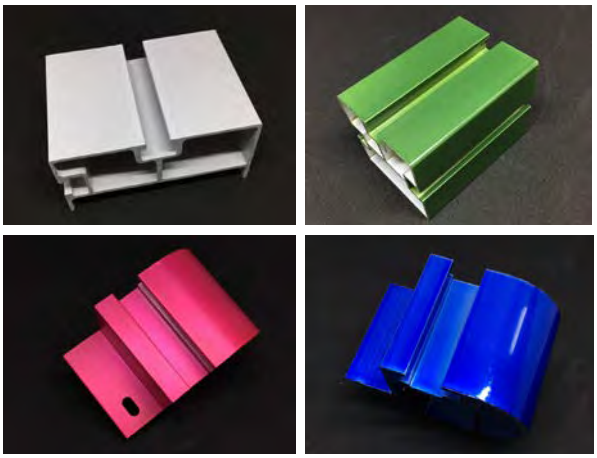
With its nanometer size and high oxidative bonding activity, KH100Z forms strong bonds with metal surfaces, providing an excellent protective layer. Compared to traditional organic resin coatings, it offers superior adhesion and hardness. The zinc powder’s sacrificial anode effect boosts its anti-corrosion performance and extends its protective lifespan.

No heavy metal pretreatment required, KH100Z can also adhere well even to surfaces with small amounts of grease or rust, ensuring consistent protection without compromising bonding strength.

KH100Z finishing can be cured at room temperature: an excellent replacement for hot dip galvanization on solar mounting system to improve anti-corrosion

Product Features:

* Easy to Apply: Mix components A and B in a 3:2 ratio, add 5 parts zinc-aluminum slurry, and apply by brush or spray. Touch-dry within 1 hour; hardness exceeds H in 24 hours.



Apply 30μm KH100Z Zinc-Rich paint on aluminium and steel, matched with 10~15μm KH100AB topcoat, the SST performance exceeds 2,000

* High Hardness and Adhesion: Hardness > 2H after 7 days at room temperature; adhesion reaches 5B.
* Excellent Weather Resistance: Exceeds 2,000 hours in salt spray testing on carbon steel surfaces.
* High Chemical Resistance: Resistant to various solvents, weak acids, and weak bases after curing.
* Wide Substrate Compatibility: Suitable for aluminum, stainless steel, carbon steel, copper, glass, ceramics, wood, cement, and various plastics.

KH100Z vs. Hot-Dip Galvanizing

	HDG	HDG + Topcoat	Zinc-Rich Coating + Epoxy Topcoat	TrueEco KH100Z Zinc-Rich Paint	TrueEco KH100Z + KH100AB* Topcoat
Thickness (μm)	20-100	20-150	150-300	30-80	40-90
SST. hours	500-2,000	1,000-2000	500-1,000	>1,500	>2,000
Hardness	<H	H	H	3H	>4H
Adhesion	Good	Moderate	Moderate	Excellent	Excellent
Impact Resist.	Good	Poor	Poor	Good	Good
Process	Factory	Factory/on-site	Factory/on-site	Factory/on-site	Factory/on-site
Process Time	Long	Long	Long	Short	Short
Repair	Difficult	Difficult	Difficult	Easy	Easy
Cost	Moderate	High	Moderate	Low	Moderate

** KH100AB is a two-component nano ceramic room-temperature topcoat that can be applied onto all sorts of metals, glass, ceramic, wood, cement, plastics and composites.*

KH100Z vs. No Coating

Left: TrueEco Nano Zinc-rich Paint + Nano Topcoat applied to carbon steel , after 2,000 hours of salt spray testing.

Right: Unfinished carbon steel, after 2,000 hours of salt spary testing

KH100Z vs. Hot-Dip Galvanizing

Left: HDG+ KH100Z (40~50μm)
Starts showing slight red rust spots after over 5,400 hours.

Right: HDG only
Approximately 1,800 hours, with extensive red rust formation.

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