

## Vision 2020

Palette inspired by global color trends

Lasting performance to endure the elements

Sherwin-Williams's ongoing commitment to innovation includes consistently creating and compiling new color collections that bring your designs to life and give you the confidence that the palette you choose today will remain relevant long into the future.

## General Features

This thermosetting powder contains polyester resins specially selected for their superior resistance to UV radiation and outdoor weathering.

These products are part of the category named HIGH DURABILITY.

The Syntha Pulvin HD products were created for coating aluminium components used in architecture and for coating galvanized steel and have all the necessary requirements for approval of the GSB Master Quality specification (license 152k) and Qualicoat Class 2, Category 1 (license P-1223).

## Application

Due to its superior performance, this powder coating is suitable for exterior applications including tropical or harsh environments.

## Advised Cycles

The surface to be coated must be cleaned from oils, grease or flash rust. If particular resistance to corrosion or humidity is required, the following pretreatment of the surface is suggested:

for aluminium	Chromate conversion pretreatment, alternative conversion systems, anodic pretreatment and chrome-free pretreatment according to Qualicoat and GSB specifications
for steel	sand blasting and/or iron or zinc phosphatizing
for galvanized steel	chromatizing

## Handling and Storage

Store at temperatures lower than 30°C; higher temperatures may damage the powder by causing undesired alterations or blobs.

Storage life in original package: 12 months.

## Technical Data

Code	Int. Method	Range	Ref. Method
P/CL092	Calc specific gravity (kg/l):	1.196 - 1.244	
P/CL120	Non volatile content (w/w) (%) 3h at 105°C:	100 - 100	UNI EN ISO 3251
P/CL125	Non volatile content (v/v)(%):	100 - 100	
P/CL143	1µm theoretical spread rate (m2/kg):	804 - 836	
P/CL210	Water content (%):	0 - 0	
P/CS010	Dry film thickness (microns):	60 - 80	UNI ISO 2178
P/CC050	Gloss 60°C:	20 - 30 2813:2001	UNI EN ISO 2813:2001

## Application Method

Apply with guns with negative terminal (60/80KV) or triboelectric guns automatically or manually.

It is advised to apply the product in layers with the thickness of 60-80 microns and to stove at 190°C for 15 minutes (temperature of the support). For stoving of the Syntha Pulvin HD products, it is possible to use the following combinations of time and temperature:

10 minutes	200°C (temperature of the support)
15 minutes	190°C (temperature of the support)
20 minutes	180°C (temperature of the support)

For stoving, use the given indications.

## Technological Features and Resistance Tests

The support used	aluminium sheet
Thickness	60 microns
Stoving	20 minutes at 190°C

Chemical resistance test by immersing for 48 hours at room temperature into:

Hydrochloric acid 10%	film is intact
Nitric acid 30%	matt, but washing off
Saturated hydrogen sulphide	intact
Hydrogen peroxide 40 volumes	intact
Ammonium hydroxide 10%	intact
Ammonium hydroxide 33%	intact
Sodium hydroxide 5%	intact
Tartaric acid 5%	intact
Sodium hydroxide 5%	intact
Citric acid 5%	intact
Lactic acid 5%	intact
Ethanol	intact
N-butanol	intact
Petroleum ether	slightly softened

The chemical resistance test was carried out on chromated aluminium.

Code	Int. Method	Range	Ref. Method
P/CM010	Buchholz indentation test:	more than 90	UNI EN ISO 2815
P/CM040	Erichsen cupping test (mm):	more than 5	UNI EN ISO 1520
P/CM050	Direct impact test (cm.kg):	more than 25	ASTM D 2794; ISO 6272-2:2002
P/CM051	Opposite impact test (cm.kg):	more than 25	ASTM D 2794; ISO 6272-2:2002
P/CM100	Crosscut adhesion (2mm, GT):	more than 90	UNI EN ISO 2409
P/CM230	Resistance to humidity: (Humidity test)	1000 hours later- no blistering, indentation along the cross of maximum 1 mm	UNI EN ISO 6270-2:2005

## Color Tolerance After Weathering

Accelerated weathering tests ISO 16474-2

Syntha Pulvin HD (Class 2) are passing Accelerated Weathering Tests	
Gloss retention:	90% after 1000 hours
Color change:	Delta E not greater than 50% of the limits prescribed in Appendix A7 for class 2

Natural Weathering Test Exposure in Florida according to ISO 2810

Gloss retention is at least:	75% after 1 Year Florida 65% after 2 Years Florida 50% after 3 Years Florida
Color change: For class 2 organic coatings the $\Delta E$ values do not exceed the maximum values prescribed in the annexed table (see Appendix A7)	After 1 year in Florida: not greater than 65% of the limits prescribed in the table After 2 years in Florida: not greater than 75% of the limits prescribed in the table After 3 years in Florida: within the limits prescribed in the table

## Note to User

The information contained in this document, while based on evidence and reliable methods, cannot be considered exhaustive.

This information is current to the date of issuance of this data sheet; therefore it is the user's responsibility to verify that the data provided on this sheet is current to the date of the product.

The user, under his/her own responsibility, shall respect all the existing provisions on hygiene and safety and shall verify every time the features and the specific and appropriate way to use the product because the user's respect of the provisions is not under producer's direct control.

The manufacturer does not guarantee nor assume any liability or responsibility for whatsoever harm that might result from a misuse of the product or for damages that have arisen after the product's distribution.

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