

# HIGH TEMPERATURE POWDER COLORS – SX

Silicon powder coating shall be identified by:

- SX-AB-C-DEFGH (Corona application),

SX means silicone (siloxane) powder coating while other marks specify the quality particulars:

A – surface: 1 – fine structured surface

B – quality: 1 – combination of the polyester with a thermal stability up to 300 °C  
2 – combination of the polyester with a thermal stability up to 450 °C

C – gloss: 5 – matt (< 20% at angle 60 °, ISO 2813)

DEFGH colors shade: DEFGH – the shade is according to RAL ( R9005),  
DEFGH – internal shade code, the first digit indicates the group shade, while other digits

## General information

Sandblasting is recommended pretreatment.

Base: binder based on a combination of polyester and silicone resins crosslinked with isocyanates. Colour shade: according to RAL-card or according to the sample.

Packaging: 25 kg cartons or big-bags of 500 kg.

## Powder properties

Density (ISO 8310-3): 1,2 to 1,7 g/cm<sup>3</sup>, depending upon the shade.

Yield: 9,8 to 13,8 m<sup>2</sup>/kg at coat thickness of 60 µm, depending on the shade.

Granulation (Malvern particle sizer): above 40 µm ... 45-60%.

Method of application: traditional CORONA procedure, negative voltage 30-100 kV, possible supply of powder adequate for TRIBO system of application (mark T i.e. SX-11-5-xxxxT).

Temperature of powder coatings must be adjusted to the temperature of spraying line before the application.

## Pre-treatment:

	STEEL	GALVAN. STEEL	ALUMINIUM
Mechanic cleaning/ sandblasting (recommended)	Suitable for bulk object	Less suitable	Less suitable
Cleaning/ degreasing	Suitable as initial phase of pre-treatment	Suitable as initial phase of pre-treatment	Suitable an initial phase of pre-treatment
Iron phosphating	Second phase, suitable for customary requirements	Second phase, suitable for customary requirements	Not suitable
Zinc phosphating	Second phase, advisable for large-scale corrosion requirements	Second phase, advisable for large-scale corrosion requirements	Not suitable
Chrome coating	Not suitable	Partly suitable	Advisable
Zeta coat	Suitable	Suitable	Suitable
Nano ceramics	Suitable	Suitable	Suitable

## Curing conditions:

- 220 °C/30 min object temperature, for quality of the SX-11 (resistant to 300 °C),
- 250 °C/35 min object temperature, for quality of the SX-12 (resistant up to 450 °C).

**Storage time:** 24 months at the temperature below 25°C for standard coatings.

## Mechanical and technological features of the silicon powder coating Ekolak SX

To determine its mechanical properties the Ekolak was applied to the 0,6 mm thick cold-rolled metal sheet degreased with acetone and cured in the oven at the temperature, required for the particular type of the Ekolak.

Coat thickness: 60-80 µm.

T-bend: minimum T4-OK/OK.

Impact test (ISO 6272): direct: minimum 50 cm × kg,  
indirect: minimum 50 cm × kg.

Adhesion (ISO 2409): Gt 0.

## Areas of application:

- car exhaust systems,
- parts of the heating elements ...