

TROUBLE SHOOTING GUIDE - PART IV

LOSS OF MECHANICAL AND CHEMICAL PROPERTIES

4.1 POOR MECHANICAL PROPERTIES AND CHEMICAL RESISTANCE

Insufficient compliance with the necessary technical properties of the powder coating.

Possible Causes	Explanation
Too high / low heat up temperature or time	Observed curing parameters of powder coating supplier
Oil, grease, extrusion oils, dust on the surface	Optimize pre-treatment
Differing materials and material colours	Insufficient pre-treatment
Incompatible pre-treatment and powder coating	Adjust pre-treatment method consult powder coating supplier

4.2 GREASY SURFACE

Haze like film on the surface, which can be wiped off.

Possible Causes	Explanation
Blooming effect – white film on the powder coating surface, which can be wipe off	Change powder coating formula. Increase curing temperature
Insufficient air circulation in the oven	Increase air circulation
Contamination on the surface because of incompatible powder coatings from different manufacturers	Use only powder from one source
Powder coating not sufficiently cured	Observe curing parameters

LOSS OF MECHANICAL AND CHEMICAL PROPERTIES

4.3 LIFTING OF THE POWDER COAT LAYER

Possible Causes	Explanation
Under or over curing of the powder coating film	Observe curing parameters
Insufficient (inappropriate pre-treatment)	Adjust pre-treatment
Scale, surface rust on the work piece	Use fresh work pieces
Oxide layer on the work piece, white rust on zinc plating	Use suitable pre-treatment materials
Film thickness too high	Reduce film thickness

4.4 POOR IMPACT RESISTANCE / POOR FLEXIBILITY

Possible Causes	Explanation
Under curing of the powder coating film	Observe curing parameters
Poor cleaning or pre-treatment	Adjust pre-treatment
Film thickness too high	Reduce film thickness
Poor properties of powder coating material / resin	Consult powder coating manufacturer

These data are based on empirical values for the completeness of which we do not assume any guarantee. Since we cannot influence in any way the processing of the product, the purchaser is responsible for ensuring that the product is suitable for the intended purpose before using the product. Any change in the processing procedure, environmental conditions, or the non-observance of instructions can influence the result negatively. Status 07/2015.