

CONDURON 160

Stop-Off Paint for Deep Carburizing in Gas for Case Depths up to 5 mm

List for Troubleshooting

Preface

CONDURON 160 can be applied easily, similar to a viscous oil paint. As with painting it is important to clean and degrease the surfaces to be coated thoroughly prior to painting and to use soft brushes.

CONDURON 160 is applied in **2 coatings** of uniform thickness, the first of which must have dried thoroughly before the second one is applied. Also it is important to have the whole coating dried thoroughly before the workpieces are put into the furnace.

If after extended storage time solids of the paint have settled at the bottom of the tin or some of the liquid vehicle of the paint has come to the surface, stir the content of the tin thoroughly and the paint will be ready for use again.

For cases where in spite of proper use poor insulation effect or other trouble is noted, we have listed below the possible defects, the reason why they can occur and the way how to avoid them.

TROUBLE	POSSIBLE REASONS FOR TROUBLE	HOW TO AVOID TROUBLE
Paint runs off during applying	1. Workpieces have not been degreased thoroughly prior to coating	Clean parts thoroughly by vapour degreasing or alkaline washing prior to applying the paint
	2. Paint has not been stirred or has been thinned excessively	Use paint as delivered but stir thoroughly prior to use; add small amounts of "Special Thinner" only if thickening has occurred due to evaporation of the liquid vehicle in the paint
	3. Paint has been applied in coatings of excessive thickness	Apply paint in two coatings of uniform thickness; have the first one dried completely before applying the second one (fingernail test!)
Paint pops off after drying	1. Surfaces of workpieces have been wet, greasy or dusty when paint was applied	Clean parts thoroughly by vapour degreasing or alkaline washing and make sure that they are dry prior to coating; remove dust after shotblasting
	2. Surfaces were too smooth after fine turning or grinding	Provide "rougher" surface

TROUBLE	POSSIBLE REASONS FOR TROUBLE	HOW TO AVOID TROUBLE
Paint pops off in the carburising furnace	Paint has been applied in a too thick layer	Apply the paint in 2 coatings of uniform thickness and let it dry thoroughly (fingernail test!) before the parts are put into the furnace
Protection against carbon pickup has been found to be non-uniform or non-satisfactory	Total thickness of coating(s) applied has been not enough or non-uniform	Apply the paint in two thin coatings of uniform thickness
Pinhole-like carburising has occurred in the coated areas	Only one coating has been applied	Always apply two coatings of CONDURON 160
Insulation has occurred on non-coated areas	Parts have been put too close together within the batch	Avoid contact or too close settling of coated and non-coated parts within the batch
Poor carburising has been found on noncoated areas	Furnace atmosphere has been affected by water vapor released during heating up of the coating	Limit coated surface area to approx. 30% of the total surface of the batch (depending on the surface to weight ratio of the workpieces)

The content of this leaflet is based on our actual knowledge. It provides a description of the product regarding properties and application without giving any guarantee or other legal binding assurance. It does not relieve the user from the responsibility of carrying out his own tests and experiments to check its suitability for his application. Also it is the user's responsibility to make sure that any proprietary rights and existing legislation are observed.

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