

CONDURSAL 710

Stop-off paint for carburizing

List for Troubleshooting

Preface

CONDURSAL 710 can be applied as easy as an oil paint. As with painting it is important to clean and de-grease the surfaces to be coated thoroughly prior to painting, to use soft brushes, to apply a coating of uniform thickness and to allow the coating to dry thoroughly before the workpieces are put into the furnace.

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

For cases where in spite of proper use poor insulation effect or other trouble is noted, please find 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
Paste runs off during applying	1. Workpieces have not been degreased thoroughly prior to coating	Clean parts thoroughly by vapor degreasing or alkaline washing prior to applying the paste
	2. Paste has not been stirred or has has been thinned excessively	Use paste as delivered and stir thoroughly prior to use; shaking the tin will not provide optimum homogenisation. Add small amounts of "Special Thinner" only if thickening has occurred due to evaporation of the liquid vehicle in the paint
	3. Paste has been applied in a too thick coating	Apply paste in a thin coating of uniform thickness
Paste pops off after drying	1. Surfaces of workpieces have been wet, greasy or dusty when paste was applied	Clean parts thoroughly by vapor degreasing or alkaline washing and make sure that they are dry prior to coating; remove dust after shotblasting before the paint is applied
	2. Surfaces were extremely smooth after fine turning or grinding	Provide "rougher" surface



TROUBLE	POSSIBLE REASONS FOR TROUBLE	HOW TO AVOID TROUBLE
Paste pops off in the carburizing furnace	Paste has been applied in a too thick layer or in more than one layer	Apply paste in one thin coating of uniform thickness and let it dry thoroughly (check by fingernail test!) Quite often the insulation effect is o.k. even if spalling has occurred during carburizing or quenching
Protection against carbon pickup has been found to be non-uniform or non-satisfactory	<ol style="list-style-type: none"> 1. Paste has been applied in a too thin or non-uniform layer 2. Coated areas did exceed 30% of the total surface of the batch. 3. Carbonitriding has been executed instead of carburizing, which gives a chemical reaction between the ammonia of the carbonitriding atmosphere and copper which is one of the proprietary components of CONDURSAL 710 	<p>Apply the paste in one coating of uniform thickness</p> <p>Do not insulate more than 30% of the total surface of the batch</p> <p>Use CONDURSAL 710 only for carburizing; for insulation during carbonitriding take either CONDURSAL 0090 or CONDURON G55</p>
Insulation has occurred on noncoated areas	Parts have been put too close together within the batch	Avoid contact or too close placing of coated and noncoated parts respectively areas within the batch

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