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PRODUCT DATA SHEET: TLHC

CHEMICAL NAME / SYNONYMS:

None

PRODUCT DESCRIPTION:

TLHC is a thermally cured Polymer. **TLHC** makes use of a unique binding system, to retain high temperature stability while reducing thermal transfer. The cured material is capable of providing increased thermal resistance while also providing a very slick wear resistant surface. TLHC incorporates ceramic fillers, increasing the impact and wear resistance. The film thickness as applied ranges from .0005" to .003" and is not sensitive to the manner in which it is applied. If a run or other excessive film build occurs it will simply bubble and crack. The damaged surface may be lightly sanded and then put in service, as normally the coating is not damaged to the base metal level. **TLHC** achieves full cure at 300F, after 1 hour at temperature. When cured, **TLHC** is not affected by most chemicals. **TLHC** can aid in the more even distribution of heat as well as allow for more efficient operation of the protected part. Part life increase is also a benefit as well as increased corrosion resistance. **TLHC** may be applied in multiple coats to achieve maximum thickness. Apply a single coat at a time, with a "flash" at 200f for 10 minutes between coats. Allow to cool to ambient before applying the next layer of material.

RECOMMENDED USES: **TLHC** can be used on any surface that can handle the cure temperature and is subject to thermal, chemical or abrasive damage. **TLHC** can be modified from its standard formulation to meet FDA requirements for food contact surfaces.

NOT RECOMMENDED FOR:

CHEMICAL RESISTANCE GUIDE:

Exposure	Splash & Spillage	Fumes
Acids	Excellent	Excellent
Alkaline	Poor	Poor
Solvent	Excellent	Excellent
Fluids	Excellent	Excellent
Fuels	Excellent	Excellent
Salt	Very Good	Very Good
Water	Excellent	Excellent

TEMPERATURE RESISTANCE: (non-immersion)

900f substrate, 2000f maximum intermittent environmental

FLEXIBILITY: Very Good

WEATHERING: N/E

ABRASION RESISTANCE: Very Good

SUBSTRATES: May be applied to both ferrous and non-ferrous.

TOPCOAT REQUIRED: None Required

SPECIAL TREATMENT: None

COMPATIBILITY WITH OTHER COATINGS: Compatible with the following Tech Line Products: TLLB, TLMB, TLTD and TLML.

SPECIFICATION DATA

THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL:
@ 30% WT.

RECOMMENDED DRY FILM THICKNESS PER COAT:
.0005" to .001"

THEORETICAL COVERAGE: 400 Sq. Ft. Gallon

BURNISHING: None required.

SHELF LIFE: 1 year plus.

COLOUR: Gray to brown depending on cure temperature and time.

GLOSS: Medium

FLASH POINT: <100f / 38C

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APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. Those instructions should be followed closely to obtain the maximum service from the materials.

SURFACE PREPARATION: All parts must be absolutely free of all oils, grease, moisture, dust, scale or corrosion.

METALS: For steel, sandblast with 80-100 grit aluminum oxide or similar. Softer metals, such as aluminum, use 100-120 grit aluminum oxide or similar at 35-40 PSI using a suction type blaster.

*NOTE: Phosphating may be preformed in lieu of sandblasting or in conjunction with the above mechanical etch.

FINAL CLEAN: Before spraying the part must be thoroughly cleaned using air blast, hot water rinse, solvent base rinse, DO NOT USE petroleum based solvents, or any other method that provides a clean dry surface.

MIXING: Stir and shake well. Disperse all solids that may have settled to the bottom of the container.

PRIMER: No primer needed.

APPLICATION TEMPERATURES:

Material Surfaces Ambient Humidity

Normal	18-30°C	18-30°C	16-32°C	35-85%
Minimum	13°C	13°C	10°C	30%
Maximum	35°C	38°C	38°C	95%

SPRAY: Apply coating in light fog passes (approximately 10% overlap) to achieve a thickness of .0005" to .001". Use sufficient air volume for correct operation of equipment. (Minimum 30 PSI to a maximum of 40 PSI) Minimum part temperature should be 55f, if below warm up part. Spray at a right

angle to part with a 1mm or smaller nozzle size. Spray all irregular surfaces and edges first, making an extra pass later. Check part for complete coverage. Part should be a gray/black color.

GUN & Mfr.: Any conventional unit. Recommended gravity feed type touch-up gun. (Important that nozzle size be 1mm or less)

DRYING TIME: Allow coating to air dry for at least 10 minutes at ambient. If top coating "flash" at 300f for 10 minutes after the air dry period has elapsed.

FINAL CURE: 300f to 400f - 150C to 204C for 1 hour at temperature.

***Note: If final cure is attained and recoat is necessary, special surface preparation may be required.

VENTILATION AND SAFETY: When used in enclosed areas, thorough air circulation must be provided during and after application until the coating is cured. The ventilating system should be capable of preventing fine particulate matter from exceeding TLV limits. In addition to proper ventilation, fresh air respirators or fresh air hoods must be used by all application personnel. Where flammable solvents exist, explosion proof lighting equipment must be used. Hypersensitive persons should wear protective clothing, gloves and/or protective cream on face, hands and all exposed areas.

CLEAN UP: M.E.K. or similar solvent

STORAGE CONDITIONS: (Store indoors)

Temperature: 10-43°C

Humidity: 0-100%

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Note: N/E = Not Established

N/A = Not Applicable

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