

# **TECHNICAL DATA SHEET**

# CHEMPAS AL - 480

# A CHROMATE CONVERSION COATING FOR ALUMINIUM

Chempas AL - 480 is a liquid product used to produce chromate coating on aluminium and alloys. The coating produces excellent corrosion protection for unpainted aluminium and bond speed very well.

This product can be used to produce both thin and thicker yellow coatings which can be used to increase adhesion for paints.

# **OPERATING CONDITIONS:**

Concentration	2-4 % by volume of Chempas AL - 480 in
	water
Temperature	Room
pH	1.8
Time	30 sec to 6 minutes

#### CYCLE:

- Cleaning.
- Water rinse.
- Water rinse.
- > Acid dip. (Nitric acid)
- Water rinse.
- > Treatment with Chempas AL 480.
- Water rinse.
- Water rinse.
- > Drying.(below 65°C).

#### **EQUIPMENT:**

PP or PVC lined tanks should be used.



# **OPERATION:**

Clean the tank as recommended and then immerse in the Chempas AL - 480 solution. Immersion time will depend upon several factors including temperature, concentration and extent of use of the solution, activity of the metal surface, and the desired coating characteristics. Although not necessary, solution or work agitation will shorten the processing time. Exposure of the work to the solution in excess of 6 minutes is not recommended; the coatings produced will be brown in colour, slightly soft, and somewhat easily scratched. Light colored coatings are preffered because of their greatly durability. Visual observation by the operator serves as the most reliable guide to immersion time.

After treatment, rinse the parts thoroughly in running cold water followed by either a warm water rinse or warm air at temperature not to exceed 70°C (see "drying").

For most chromating operations, the Chempas AL - 480 solution may be used until exhaustion, then damped and a fresh solution made up. For special application, such as a strip or sheet mill operations, the use of automatic-metering equipment for replenishment may be desirable. The replenishment rate can be established, using the analysis for Chempas AL - 480 content as outlined under "Control".

#### **DRYING:**

The method of drying is fairly critical, the chromate coating is soft when freshly applied and should not be abraded. Drying is best done by warm air ( 70°C maximum ). Coating dry in this manner will be slightly soft but will age- harden to maximum hardness in 48 hours. Excessive heat for drying will reduce the corrosion resistance of the coatings.

#### **EQUIPMENT:**

Tanks containing Chempas AL - 480 solution and automatic meteoric equipment ( if used ) should be lined with polyethylene, PVC, or polypropylene. If 18-8 stainless steel is part of the installation it may be used also. Polyethylene, PVC or polypropylene baskets or racks are suitable for holding the work. Glass should be used because Chempas AL - 480 solution attacks glass. Ventilation is not required.



# **CONTROL:**

Analysis of the Chempas AL - 480 content of the operating solution is necessary only to establish a replenishing rate when automatic metering equipment is used.

# **CAUTION:**

Chempas AL - 480 are strongly acidic and oxidizing in nature. Wear protective rubber gloves and aprons while handling. In case of contact with eyes or skin flush with plenty of water.

#### **WASTE TREATMENT:**

Chempas AL - 480 solutions contains chromic acid (hexavalent). It should be neutralized with ferrous sulphate to trivalent stage and upon reduction it should be neutralized with alkali before discharging into sewage.

#### **DISCLAIMER:**

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