TECHNICAL DATA

FEDERCROM

Description

A process used to produce amorphous chromate/oxide coatings on aluminium and its alloys prior to organic finishing.

The Control of Substances Hazardous to Health Regulations 2002 (COSHH)

This product contains the following substances listed in Part 1 of the Approved Supply List as dangerous for supply within the meaning of The Chemicals (Hazard Information & Packaging for Supply) Regulations 2002.

SUBSTANCE	GENERAL NATURE OF RISK
Chromium Trioxide	>10 <25% Corrosive, Toxic
Sodium Bifluoride	>10% Toxic
Hydrofluoric Acid	<7% Corrosive, Toxic

Instructions for use

Concentration:	1 - 3% v/v (13 - 40gm/litre)
Temperature:	20 - 45°C
Time:	2 - 10 minutes

The aluminium components must be cleaned, etched and if necessary desmutted prior to chromating in FEDERCROM. Your Confederate Chemicals representative will be pleased to advise you of a suitable system.

Control

(1) Pointage: Take a 10 ml sample from the tank and dilute to approximately 50mls with water. Add 5mls of 50% Sulphuric acid, approximately 2gms of Potassium Iodide and swirl to dissolve the powder. Titrate against 0.1N Sodium Thiosulphate solution using Iotect Indicator (colour change blue/black to green). Each ml of Sodium Thiosulphate is considered 1 point. A solution of FEDERCROM made up at 1% v/v will titrate at 5.8 - 6.2 points.

Keep the pointage between 6.0 and 10.0 by the addition of FEDERCROM. The addition of 1.6 litres (2kg) FEDERCROM per 1000 Litres will raise the concentration by 1 point.

(2) Free Acid: Titrate a 10ml sample against 0.1N Sodium Hydroxide solution to the Bromocresol Green end point (colour change yellow to green). Each ml is considered 1 point.

Normally the free acid pointage is kept in the range 2.0 - 4.0. For difficult alloys this can be increased by the addition of Nitric Acid. 0.6kg of Nitric Acid (57%) / 1000 litres will raise the free acid pointage by 0.5 points.

Equipment

All tanks and equipment should be acid/fluoride resistant preferably 316 stainless steel.
DO NOT USE mild steel, glass lined, GRP ("fibreglass"), rubber lined or lead lined tanks.

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