



**TECHNICAL SPECIFICATION
FOR
VIBRO TUMBLING CHEMICALS**

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1) SCOPE :

(a) The chemicals are used to improve the Surface finish of Steam Turbine Blades and Gas Turbine Blades from Surface Roughness (Ra) 1.6 - 2.0 microns to 0.40 microns or better. The polishing will be done by vibro-abrasion between turbine blade and suitable chips in an acid medium followed by cleaning in a neutralizing medium. The length of the blades to be accommodated shall be between 100 mm to 700 mm.

(b) PRESENT RANGE OF COMPONENTS:

1.) Min. Blades size: 50(L)x 12.5 (W) x 15(T) (26 gm), Blade Drawing:2-30315-00150 (T7-12.5)

2.) Max. Blade size: 700(L) x 68(W) x 75 (T) (10 Kg). Blade Drawing: 0-10307-62012 (Z-Type; 5 M2)

3.) Blade size: 190 (L) X 110 (W) X 40 (T) Drawing No: 0-35305-61013 enclosed for reference. GT Blades (FR-6 STG.3)

2) CHEMICALS:

The following chemicals are used.

a).Megalloy Part A (REM)/GEDEB 810P(GALA) /FS-AAPP(FINSOL) or Equivalent

b).Meagalloy Part B(REM)/GEDEB 811(GALA)/FS-BPP(FINSOL)orEquivalent

c). FBC118(REM)/GEPOL 813P(GALA)/ FS33(FINSOL) or Equivalent

The above chemicals shall not affect the mechanical / metallurgical properties of the blade material: X 20 Cr 13, X 22 Cr MoV121; C 450, 403 Cb.

**Date :
24.09.13**

**Prepared By :
K SRINIVASA RAO**

**Approved By :
KSN MURTHY**



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3) SPECIFICATION OF THE CHEMICALS(LIQUID) OF (2 c) :

: liquid formulations of surfactants, binders,
foam stabilizers, brighteners & corrosion inhibitors. Dark
Green colour. Neutral to mildly alkaline pH. Medium
Foaming. Totally biodegradable.
Appearance - Dark green.
Viscosity – 100.47 cents strokes.
Active matter – 5.51 W/W.
Sp. Gravity at 30 degree C – 1.0768.
Specification – NIL.
Insoluble matter – NIL.
Ph 7/8.


3.1) USAGE DATA : As per the polishing cycle suggested by the supplier.

3.2) SAFETY DATA : Non-flammable. No special safety or handling requirements. Protective gloves spectacles advisable but not mandatory. Case of eye or skin contact, rinse thoroughly with water. If Ingested drink plenty of water. The compound is not at all harmful to your skin or body. It is in the category of Shampoo. It is neutral and biodegradable.

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<p>5) <u>PROCESS:</u></p> <p>5.1. <u>Deburring cycle.</u></p> <p>a) Add POWDERS, Chemical and Water into the Container in the proportions as recommended by the chemical supplier.</p> <p>b) Load Blades into the container.</p> <p>c) Start De burring cycle time for 360 min or as suggested by the supplier.</p> <p>d) After Deburring start washing cycle for 20 min followed by draing off 10 min or as suggested by the supplier.</p> <p>5.2. <u>Polishing Cycle:</u></p> <p>a) Add chemical and water into the container in the proportions as recommended by the chemical supplier.</p> <p>b) Start Polishing cycle for 80 min or as suggested by the supplier.</p> <p>c) Drain on- wash on for 20 min or as suggested by the supplier.</p> <p>d) Reverse tumble the blades for 10 Sec or as suggested by the supplier.</p> <p>Collect the blades Manually by lowering Flopper.</p>		
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