

Technical Data Sheet • CHEMEON® Seal 6200

Description:

Liquid mid-temperature magnesium seal. Provides excellent corrosion resistance with minimal dye leaching. Use at 1 - 3% v/v with a pH of 6.5 to 7.5 and temperature of 170 °F to 200 °F for 5 to 20 minutes.

Operating Conditions:

Method of Application:	Immersion
Concentration:	1.0 - 3.0% by volume
Immersion Time:	5 - 20 minutes
Temperature:	170 - 200°F (77 - 93°C)
pH:	6.5 - 7.5
Water:	Tap water of good quality or deionized water
Tank:	Stainless steel or other acid resistant material which is stable to 200°F.

Recommendations for make-up and maintenance:

1. Seal tank should be completely cleaned down to the bare metal
2. Adjust the pH of the water to between 6.5 and 7.5 with acetic acid or ammonium hydroxide before adding CHEMEON® Seal 6200.
3. Separate tanks for clear and dye work will give longer tank life for the clear seal tank.
4. Warm water rinse after sealing with a pH below 6.0.
5. Check CHEMEON® Seal 6200 concentrations regularly and make necessary additions.
6. Maintain the pH at 6.5 - 7.5 with additions of ammonia or acetic acid.
7. Use of CHEMEON® Additive 6102 greatly enhances the stability of the pH.
8. Filtering will greatly lengthen the life of the bath.

Recommended anodizing practices:

1. The anodize tank should be kept below 75 °F and good air agitation should be used.
2. Rinse parts thoroughly after anodizing. Use good quality water and overflow adequate rate to maintain low ion concentrations.

Solution Control:

1. Pipet 50 mL of seal solution that has cooled to room temperature into a 400 mL beaker.
2. Add ~200 mL of DI water.
3. Add 10 mL of ammonium chloride buffer* and 3 drops of erichrome black T indicator solution.
4. Titrate with 0.1 M EDTA until the color changes from red/pink to blue.



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5. Record mL of 0.1 M EDTA necessary to reach the blue endpoint.

6. Calculation:

$$\text{CHEMEON® Seal 6200 (\% by volume)} = (\text{mL of 0.1 M EDTA}) \times 0.085$$

*Preparation of ammonium chloride buffer:

10% v/v concentrated HCl (36-38 weight%)

60% v/v concentrated ammonium hydroxide (28-30 weight%)

30% v/v water

Add the HCl to the water, then add slowly to the ammonium hydroxide. The pH of the solution should be 10.5.

Physical and Safety Data:

CHEMEON® Seal 6200 is a clear yellow liquid.

CHEMEON® Seal 6200 is not hazardous. Do not take internally.

Packaging:

55 gallon drum

5 gallon pail

Storage:

Store CHEMEON® Seal 6200 at ambient temperature in a dry place.

Waste Disposal:

Dispose of according to Federal, State, and local waste treatment regulations.

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