

AQUA-QUENCH 3699

Concentrated Polymer Quenchant

DESCRIPTION

Aqua-Quench 3699 is a water soluble quenchant with oil-like quenching characteristics. Aqua-Quench 3699 is an advanced polymer quenchant designed for both low and high hardenability steel applications. Its quenching characteristics can be varied between those of water and normal speed cold quenching oil by varying the concentration of the solution.

APPLICATION

The quenching speed of Aqua-Quench 3699 can be selected to suit the steel hardenability and component requirements by varying the concentration and temperature of the solution and the degree of agitation in the quench tank.

Aqua-Quench 3699 was developed to extend the range of polymer quenchant applications to higher hardenability, thinner section steels and alloys not previously considered suitable for quenching in conventional polymer quenchant. Aqua-Quench 3699 is used generally at concentrations of between 5% and 25% in order to provide the most oil-like quenching characteristics. It can be used in many different types of furnace applications including continuous mesh belt, shaker hearth, and rotary furnaces as well as for direct quenching into open quench tanks.

DATA (TYPICAL VALUES)

| | |
|---|------------------------------------|
| Appearance | Slightly Hazy Light Amber Fluid |
| Kinematic Viscosity @ 100°F (37.8°C) | 690 cSt |
| Specific Gravity @ 60°F (15.6°C) | 1.02 |
| pH | 9.3 |

Date | version
Code

FEATURES/ BENEFITS

- Advanced polymer quenchant providing oil-like quenching characteristics and less distortion eliminating the need for re-work
- Water based quenchant to eliminate fire hazard and smoke associated with quenching oils along with cleaner parts and safer working environment
- Flexibility of quenching speed helps to minimize distortion and provide excellent dimensional control
- Nitrite free corrosion inhibitor providing good short term rust protection of heat treated components

HEALTH AND SAFETY

Refer to MSDS for proper handling and disposal. Please note that the MSDS includes handling, health and disposal information which should be passed on to your employees, and to anyone else who comes in contact with our product. Additional advice can also be obtained from your local Houghton representative.

NOTE: Read and understand all precautions on container labels before using this product.



Houghton International Inc.
Madison and Van Buren Aves.
P. O. Box 930
Valley Forge, PA 19482-0930

Phone: 610-666-4000
Fax: 610-666-0174
info@houghtonintl.com
www.houghtonintl.com

This document contains information based on data that is believed to be correct. However, the product may not be applicable to all uses and operating environments. No warranty or guarantee is expressed or implied.

COOLING CURVE ANALYSIS

By ivf quenchoest

Aqua-Quench 3699

QRS #

Date: 3/12/2010

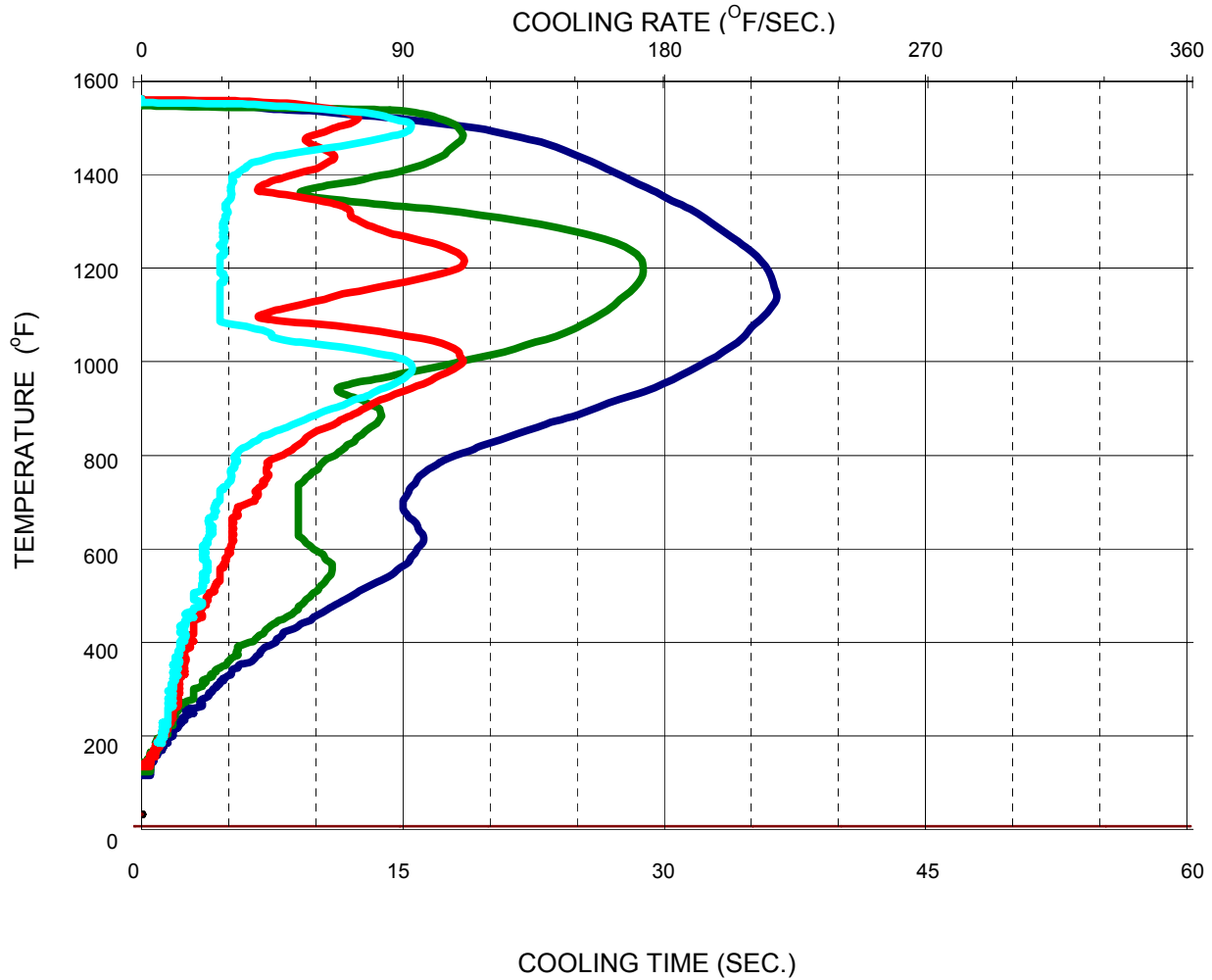
Test Parameters:

Sample Size - 1 liter
Probe -IFHT Std. Inconel 600

Bath Temp.-
Agitation-

100° F
Moderate

| | | |
|--------------------|------------------|-----|
| Sample #1- | Aqua-Quench 3699 | 5% |
| Sample #2 - | Aqua-Quench 3699 | 10% |
| Sample #3 - | Aqua-Quench 3699 | 15% |
| Sample #3 - | Aqua-Quench 3699 | 20% |



COMMENTS:

Tested according to Houghton International laboratory procedure Q03.