Enviroquench

Aqueous Polymer Quenchant

DESCRIPTION:

ENVIROQUENCH® is a new environmentally friendly water based polymer quenchant that can provide a quenching response like that of fast quench oil. It is far superior to oil in its safety and environmental characteristics. It is non-flammable, provides desirable cooling characteristics, more reliable control in use, little or no environmental impact and better economy.

Unlike polyalkylene glycols, ENVIROQUENCH® is completely water soluble at all concentrations and temperatures. It causes little or no foaming, contains a biocide and is fortified with suitable additives to prevent multi-metal corrosion. At 25% concentration and 120°F (49 °C) and good agitation, ENVIROQUENCH® provides quenching response at all stages of quenching that approximates those exhibited by fast quench oils. Consequently, those conditions necessary for achieving maximum hardness in steel with minimum distortion or cracking can be realized. However, to obtain the best results for a particular quenching application, it is highly recommended to optimize the main operating parameters such as concentration, temperature, agitation, duration of quenching, loading pattern etc. This optimization is essential since different conditions may be required for different steel or parts made of the same steel but differing in size.

Most of the polymer film deposited on the metal surface during quenching re-dissolves in the solution thus minimizing the drag-out losses. The remaining film is quickly and completely washed off with just plain water at ambient temperature.

TYPICAL PROPERTIES:

Appearance:	Pale yellow, transparent
Viscosity at 40°C:	160 cSt
Freezing Point:	-4 °C
Solubility:	Soluble in water (all proportions)
Specific Gravity:	1.01
pH:	9.7
Refractometer Factor:	7 . 0

USE INSTRUCTIONS:

Concentration:	1 – 40% by
Temperature:	Ambient – 65 °C
Agitation:	≥ 0.5 m/s recommended
Time:	As required for appropriate Metallurgical transformation

MATERIAL COMPATIBILITY:

Tanks may be constructed of mild steel.

CONCENTRATION CONTROL:

Shell Cup Test Method (Shell Cup #2)

1. Submerge the cup in the 80°F sediment and air free solution. Allow approximately 30 seconds for the cup to attain sample temperature.
2. Lift the cup vertically out of the solution, starting the stopwatch as the bottom of the cup breaks the surface.
3. Record the time required for the cup to empty, stopping the watch when the stream first breaks.
4. Read concentration from the plot of time (seconds) versus percent by volume concentration.

SAFE HANDLING & STORAGE CONDITIONS:

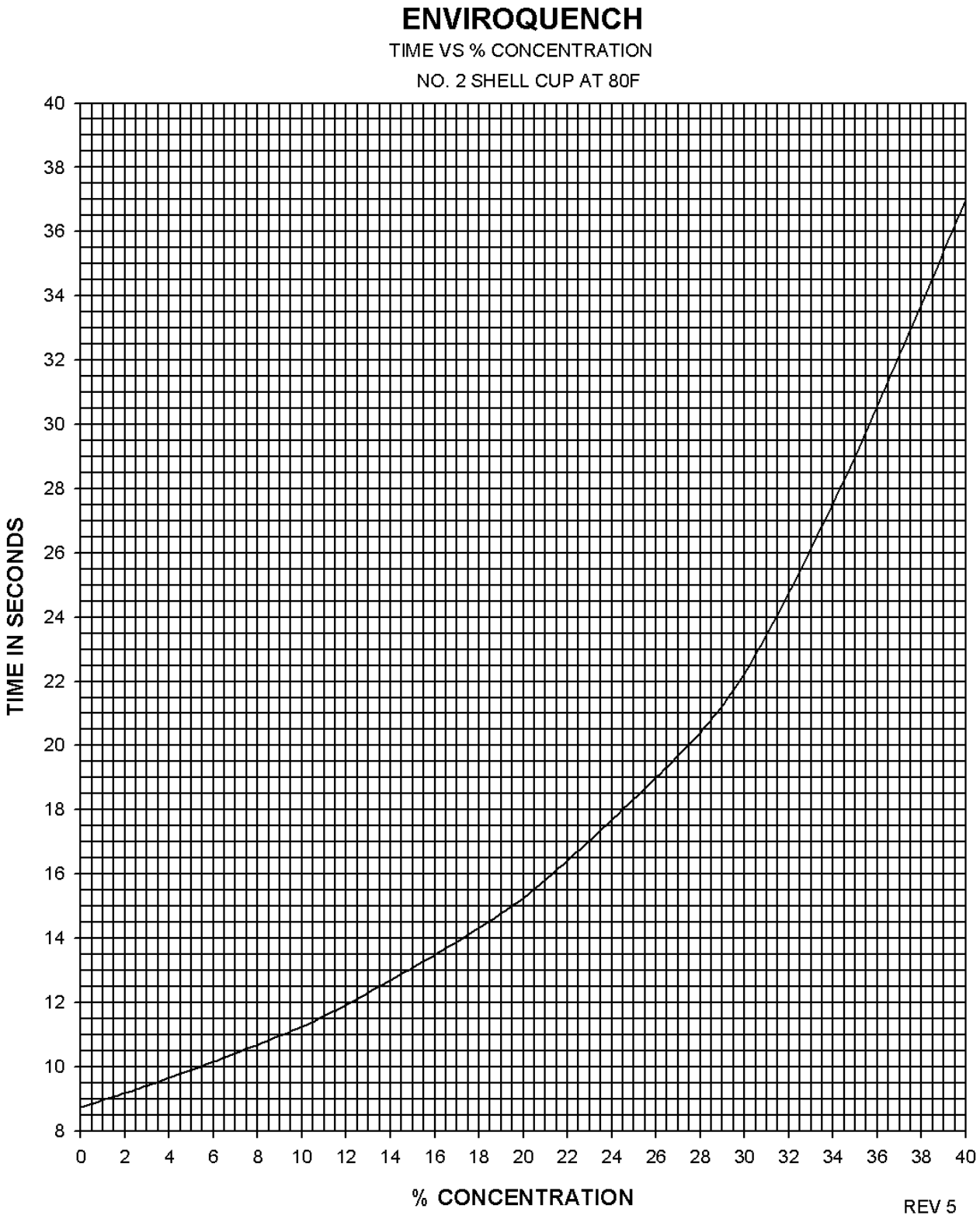
Use ENVIROQUENCH® with adequate ventilation. Read the current Safety Data Sheet thoroughly before using this product.

DISPOSAL:

Any disposal of this product should be in compliance with all federal, state, and local regulations. Please refer to the Safety Data Sheet (SDS) for instructions regarding proper disposal of this product.

PRECAUTIONS:

KEEP OUT OF THE REACH OF CHILDREN.
Please refer to the label and Safety Data Sheet (SDS) for all warnings, recommendations for safety equipment, and other regulatory information. Copies of the SDS can be ordered by calling 800-438-2647.


ENVIROQUENCH
TIME VS % CONCENTRATION
NO. 2 SHELL CUP AT 80F
TIME IN SECONDS
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
% CONCENTRATION
REV 5