



# Parquench 90

## Aqueous Polymer Quenchant

### DESCRIPTION:

**PARQUENCH® 90** is a unique water based polymer quenchant. It is far superior to oil in its safety and environmental characteristics. Unlike polyalkylene glycols, **PARQUENCH® 90** is completely water soluble at all concentrations and temperatures. It is non-flammable, non-toxic and provides desirable cooling characteristics, more reliable control in use, minimal environmental impact, and better economy.

**PARQUENCH® 90** can provide cooling rates at all stages of quenching that approximate those exhibited by fast quench oils. Consequently, those conditions necessary for achieving maximum hardness in steel with minimum distortion or cracking can be realized.

**PARQUENCH® 90** is widely used for quenching forgings in open tanks. It can also be used in continuous furnaces.

### TYPICAL PROPERTIES:

Appearance:	Slightly hazy, straw color
Viscosity at 40°C:	130 cSt
Freezing Point:	-4 °C
Solubility:	Soluble in water (all proportions)
Specific Gravity:	1.03
pH:	9.0
Refractometer Factor:	8.3

### USE INSTRUCTIONS:

Concentration:	1 – 40% by
Temperature:	Ambient – 60 °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.

### CORROSION CONTROL:

If for any reason the existing corrosion inhibitor in the quenchant does not provide adequate protection, the addition of a small amount of **RUST INHIBITOR SQ** will reinforce the anticorrosion activity, without interfering with the quenching mechanism of the polymer solution.

**RUST INHIBITOR SQ** is solid and readily soluble in warm water. It is added to the quenching solution at a concentration of .1 - .5% (by weight) to provide a working pH of greater than 8.

### SAFE HANDLING & STORAGE CONDITIONS:

Use **PARQUENCH® 90** 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.



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TIME VS CONCENTRATION

NO. 2 SHELL CUP AT 80 F

