



Castrol Iloquench 700 Aqua

Water Soluble Polymer Quenchant

Description

Castrol Iloquench™ 700 Aqua is a polymer quenchant for induction hardening of steel and cast iron. It is an aqueous solution of synthetic water-soluble polymers of high molecular weights plus an antifoam agent and nitrite free corrosion inhibitors.

Application

Iloquench 700 Aqua has been developed for quenching of steel components in induction or flame hardening applications to reduce the occurrence of warping or cracks.

Typical components treated are crankshafts, gears, axles, transmission shafts, saw blades, rolling mill cylinders, rocker arms and push rods.

Iloquench 700 Aqua offers a rate of quench which is intermediate between water and mineral oil based quenchants, which can be varied by altering the concentration.

Conditions of Use

Temperature of bath:	20 - 45 °C
Typical concentrations:	- Carbon steel and low alloy steel 5 - 10%
	- Medium alloy steel 10 - 15%
	- High alloy steel 15 - 25%

The quenching result is affected by many parameters, such as the metal alloy and the geometry of the part, the required depth of effective quenching and the method of application.

It is recommended to perform preliminary tests on the unit under consideration for optimising the process parameters.

Advantages

- Non-flammability of quenching bath, reduce the risk of fire hazards
- Excellent in-process corrosion protection
- Low foaming
- Improved conditions of work - offers considerable reduction and in some cases elimination of deposits on handling machines and quenched work
- Improved cleanliness of components as the quenchant is water based and easily removed
- Reduced drag out and residue formation

Typical Characteristics

Description	Test Method	Unit	Value
Appearance	Visual	-	Clear to hazy, light yellow liquid
Density @ 15 °C	ASTM D4052	g/ml	1.04
pH (15% in Distilled Water)	ASTM E70-97	-	9.5
Cast Iron Corrosion (5% in Distilled Water)	IP 287	-	No stains

Subject to usual manufacturing tolerances.

Storage

To avoid product deterioration always keep the container/drum tightly sealed. Store the product in a cool, dry place away from direct sunlight. Prevent exposure to frost and avoid water ingress. For optimum product stability, it is preferable to store the product indoors between 5°C and 45 °C / 41°F and 113°F.

For more details, please refer the product safety data sheet.

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