COGELSA®
EFFICIENT LUBRICATION

TECHNICAL INFORMATION

TEMPLEX SOL 441

QUENCHING FLUID

DESCRIPTION AND APPLICATIONS

TEMPLEX SOL 441 is a water soluble fluid, based on synthetic polymers for steel quenching. Working temperature between 20 ºC and 50 ºC.
At high concentrations the cooling rate is similar to an oil, while at low concentrations it is higher than water.

PROPERTIES

- Fast quenching speed.
- Nitrite free
- Protects against corrosion.
- Variable quenching speed depending on requirements.
- It offers high resistance to bacterial contamination.
- Uniformity of hardness in the pieces.
- Minimizes waste on parts.

INSTRUCTION FOR USE

TEMPLEX SOL 441 can be mixed with water in proportions between 5% and 30%, up to 50% depending on the severity of the hardening. For induction hardening it is recommended between 5% and 15%.
To maintain bath characteristics, the concentration should be controlled with a refractometer. Concentration is equal to reading multiplied `by 1,9.
The bath temperature should be maintained between 20°C and 50°C.
Viscosity control allows us to maintain the cooling curve as a function of product concentration, is detailed in the following table:

CONCENTRACIÓN	VISC. cSt, 20°C	VISC. cSt, 40°C	VISC. cSt, 50°C	LECTURA REFRACTOMETRO
5%	1,9	1,1	0,9	2,6
10%	3,0	1,7	1,4	5,2
15%	4,7	2,6	2,1	7,8
20%	6,5	3,7	3,1	10,6
25%	9,9	5,3	4,3	12,8
30%	24,1	7,5	6,1	15,4

TECHNICAL CHARACTERISTICS

	Typical values
Appearance	Clear viscous liquid
Emulsion appearance 5% in water 10 ºHF	Transparent
pH 5% H_2O dist.	9,2
Foaming test	Pass
Specific heat 15%	0,96 cal/g. ºC
Maximum cooling rate at 10%	169 ºC/s a 632 ºC
Cooling rate at 300 ºC, 10%	52,23 ºC/s

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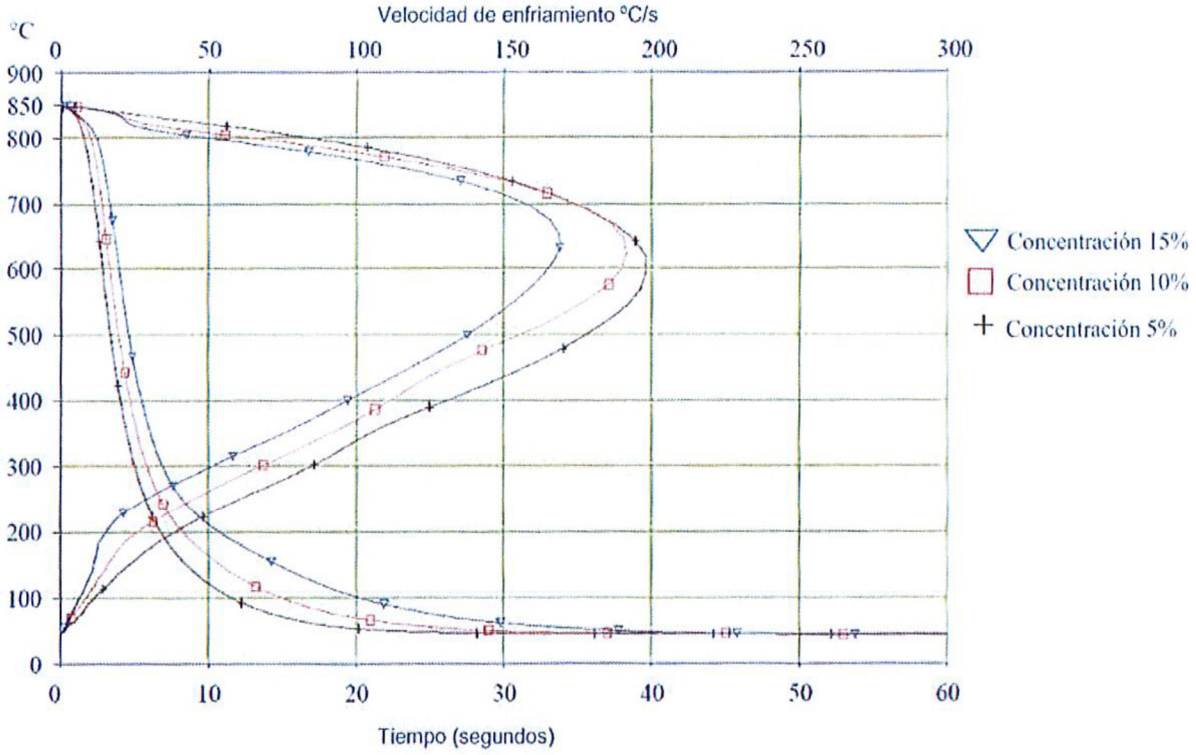
Comparative curves at 5,10 and 15%. Test temperature 40 ºC with agitation.



Rev: 09/17

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