Product Bulletin

GULF SUPER-QUENCH® 70

Gulf Super-Quench® 70 is designed for controlled rapid cooling of heat treated steels.

FEATURES AND BENEFITS:

Gulf Super-Quench® 70 has outstanding stability in quenching operations. It reduces sludge forming tendencies, enhancing the oil's ability to continuously produce clean, bright-finished parts. It exhibits excellent thermal stability, resisting changes in viscosity in normal service. Additionally this product minimizes cracking and distortions through controlled cooling, requires no additive replacement, and its high flash point helps minimize fire hazards.

APPLICATIONS:

Gulf Super-Quench® 70 is recommended for use when deeper and more uniform hardening is required in steels having small grain size or wide variations in grain size, in steels lean in alloy content, when minimum distortion is required in high hardenability steels, or in parts having odd shapes or variable sections. It is ideally suited for use when parts must retain a bright finish. Such parts are usually heat treated under a protective atmosphere.

AVAILABILITY:

Gulf Super-Quench® 70 is available throughout Gulf's marketing area. Your Gulf representative can provide specific information. Need additional Information? Call Gulf @ 1-800-566-GULF (4853) or visit Nu-tierbrands.com.

Typical Properties

Properties	Test Method	Gulf Super Quench 70
Product Code		**336261**
Viscosity, cSt @ 40°C	ASTM D-445	16.0
Viscosity, SUS @ 100°F	Calculated	81.4
Viscosity Index	ASTM D-2270	109
Appearance		Clear, Very Dark
Pour Point, °F (°C)	ASTM D-97	-6 (-21)
Flash Point, COC, °F (°C)	ASTM D-92	360 (182)
GM Quenchometer, Sec (1)*	ASTM D-3520*	10.0 – 12.0

*Note: (1) ASTM D-3520 is obsolete. Value shown is for reference only; using nickel ball.

These cooling rates and quench times are typical of current production. While future formulations will conform to Gulf specifications, variation in these typical properties may occur. Used oil values will vary from typical new oil values.

Typical Quenchalizer (ASTM D-6200) Data

Maximum Cooling Rate, ºF/sec, °F	193
Temperature at Maximum Cooling Rate, ºC	630
Cooling Rate at 600°F, °F/sec	15
Time to reach 600ºC, sec	7
Time to reach 400ºC, sec	11
Time to reach 200ºC, sec	41

Note: The cooling curve, cooling rate curve, and associated cooling characteristic data shown above were generated in accordance with ASTM D-6200.

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