



SHELL VOLUTA[®] OILS

Quality quenching oils

Product Description

Shell Voluta[®] quenching oils permit uniform hardening of steels with minimum distortion and discoloration, while helping improve grain structure and promote long service life.

Shell Voluta[®] H201 is a highly refined paraffinic mineral oil. This product is suitable for use where maximum hardness is not required. Shell Voluta[®] H201 is considered to be a slow quenching oil for use in bath operations between 90°F and 130°F. Shell Voluta[®] H301 is a highly refined paraffinic mineral oil blended with additives to impart rapid cooling, excellent oxidation stability and extended service life. Shell Voluta[®] H301 is suitable for use in baths operating between 90°F and 150°F when a medium to fast quenching product is required. Shell Voluta[®] H302 is a dark quench oil containing a highly refined paraffinic mineral oil and an accelerant additive to provide rapid cooling. Shell Voluta[®] H302 is also suitable for baths operating between 90 and 150°F where a fast quenching product is required and where bright finish on parts being quenched is not required. Shell Voluta[®] VH401 is made from highly refined paraffinic base oils and is used in quench and marquench operations. Shell Voluta[®] VH401 is suitable for the production of very hard parts especially where distortion of the quenched parts cannot be tolerated. Shell Voluta[®] VH401 is suitable for use in baths up to 350°F. The bath temperature should be maintained as low as possible, while achieving the desired metallurgical results. High oil temperatures shorten the useful life of the oil.

Applications

- quench oil systems

Features/Benefits

- heat dissipation
- excellent oxidation stability
- corrosion protection
- rust inhibition
- controlled hardness
- reclamation

Typical Properties of Shell Voluta[®] Oils

	Test Method				
		H201	H301	H302	VH401
Product Code		61049	61050	61051	61052
Viscosity:					
@ 40°C, cSt	D 445	20.2	23.9	20.6	243
@ 100°C, cSt	D 445	4.08	4.26	4.14	20.0
@ 100°F, SUS	D 88	106	113.6	108.3	1288
@ 210°F, SUS	D 88	40.0	40.6	40.2	101
Viscosity Index	D 2270	100	100	101	95
Gravity, °API	D 1298	32.0	31.7	31.3	27.2
Flash Point, COC, °F	D 92	390	385	350	565
Pour Point, °F	D 97	10	0	10	5
Quench Speed	D 3520				
Seconds, 70°F		27	16	16.7	37
Relative Cooling Index		113	191	171	85
GM Quench Speed, Seconds		28	13.5	10.7	34

Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.