

product data sheet

VARQUENCH RANGE

Mineral oil based heat treatment fluids.

VARQUENCH D22

Cold quenching oil

VARQUENCH D22 is a none accelerated quenching oil suitable for at temperatures up to 80°C. It is based on specially selected solvent refined mineral oils to ensure consistent performance under arduous operating conditions. It is formulated to give exceptional thermal stability with maximum resistance to oxidation and sludging. This product is suitable for general purpose applications and is suitable for use in open quench tanks, sealed quench furnaces and continuous furnaces of the shaker hearth, cast link and mesh belt type. It can also be used where an accelerated quench oil is likely to cause problems such as cracking or distortion when components of high carbon / high alloy steels are being treated.

VARQUENCH D22.5

Moderately Accelerated Quenching Oil

VARQUENCH D22.5 is a moderately accelerated cold quenching oil of low viscosity suitable for use at temperatures up to 80°C. It is based on specially selected solvent refined mineral oils to ensure consistent performance under arduous operating conditions. It is formulated to give exceptional thermal stability with maximum resistance to oxidation and sludging.

VARQUENCH D22.5 is widely used for where an accelerated quench is required to improve hardness of the quenched steel. In particular it can provide constant quenching performance and cooling speeds high stability under severe conditions. A carefully selected additive package is incorporated into the product which reduces the vapour blanket stage, provides high maximum cooling rates and high quenching speed in the convection phase. This product is suitable for general purpose applications and is suitable for use in open quench tanks, sealed quench furnaces and continuous furnaces of the shaker hearth, cast link and mesh belt type. A popular product with sub contract heat treatment contractors due to the wide range of steels and applications the product covers.

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VARQUENCH D22A **Accelerated Quenching Oil**

VARQUENCH D22A is a fully accelerated cold quenching oil of low viscosity suitable for use at temperatures up to 80°C. It is based on specially selected solvent refined mineral oils to ensure consistent performance under arduous operating conditions. It is formulated to give exceptional thermal stability with maximum resistance to oxidation and sludging.

VARQUENCH D22A is widely used for where an accelerated quench is required to improve hardness of the quenched steel. In particular it can provide the fast quench required to harden leaner alloy steels whilst minimising distortion. A carefully formulated additive package is incorporated into the product which reduces the vapour blanket stage, provides high maximum cooling rates and high quenching speed in the convection phase. Due to the advanced type of additives used it is particularly suitable for application requiring accelerated quenching characteristics with minimal component staining. This product is suitable for general purpose applications and is suitable for use in open quench tanks, sealed quench furnaces and continuous furnaces of the shaker hearth, cast link and mesh belt type.

VARQUENCH FAST MD **Highly Accelerated Quenching Oil**

VARQUENCH FAST MD is a highly accelerated cold quenching oil of light viscosity. It is widely used where a heavily accelerated quench is required to improve hardness of the quenched steel. In particular it can provide the fast quench required to harden leaner alloy steels whilst minimising distortion.

VARQUENCH FAST MD offers constant quenching performance and cooling speeds, high stability under severe conditions and excellent resistance to oxidation.

VARQUENCH D32 **Cold quenching oil**

VARQUENCH D22 is a none accelerated quenching oil suitable for at temperatures up to 80°C. It is based on specially selected solvent refined mineral oils to ensure consistent performance under arduous operating conditions. It is formulated to give exceptional thermal stability with maximum resistance to oxidation and sludging. This product is suitable for general purpose applications and is suitable for use in open quench tanks, sealed quench furnaces and continuous furnaces of the shaker hearth, cast link and mesh belt type. It can also be used where an accelerated quench oil is likely to cause problems such as cracking or distortion when components of high carbon / high alloy steels are being treated.

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VARQUENCH D100H

High Performance Hot Quenching Oil

VARQUENCH D100H is a high performance accelerated hot quenching oil suitable for use at temperatures of up to 200°C. The product is formulated using solvent refined mineral oils and specially formulated additive system which provides accelerated quenching performance with good thermal stability and excellent resistance to oxidation.

VARQUENCH D100H is designed for hot quenching applications where a very high cooling rate is necessary to achieve the required hardness and physical properties without distortion.

VARQUENCH D100H is ideal for use in sealed quench furnaces up to 150°C, under a protective atmosphere, for control on high precision components. It can also be used in open tanks at temperatures in excess of 110°C for quenching of large parts such as gears and shafts. Under both these operating conditions the vapour phase is reduced allowing a high rate of cooling.

Typical Properties

			Varquench					
			D22	D22.5	D22A	Fast MD	D32	D100 H
Parameter	Unit	Method						
Kinematic Viscosity								
KV40	mm²/Sec	ASTM-D445	22.00	22.00	24.00	30.00	32.00	110.00
Colour		ASTM-D1500	1.5	2.0	2.0	3.0	3.0	3.5
Density @ 15.5°C	g/cm³	ASTM-D4052	0.840	0.842	0.842	0.845	0.845	0.884
Flashpoint	°C	ASTM-D92	200	204	204	206	206	210
Accelerated			No	Yes	Yes	Yes	No	Yes
Cooling rate	°C/Sec		50.0	70.0	85.0	100.0	50.0	70

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Varol Metalworking		Varol Machine Lubricants	
Varcut	Neat cutting oils, high performance, extensive range of viscosities	VARQUENCH	Heat treatment oils Accelerated and none accelerated
Varform	Comprehensive range of neat forming oils, including water extendable versions and vanishing oils	Varmulti Viscosity 32 - 680	Multilube - Slideway, Gear, Hydraulic
Varclean	Aqueous based wash fluids, surface cleaners and solvent degreasers	Vargear Viscosity 68 - 460	Industrial Gear
Varcool & Vargrind	Comprehensive range of high performance water soluble fluids. Low, medium, high oil content and synthetics	Varpress Viscosity 5 - 150	Hydraulic oil range covering zinc containing, zinc free and high VI