Shell Garia 601 M-12 and M-22

Neat cutting oils

Shell Garia 601 M-12 and M-22 are neat cutting oils for machining of high alloy steels (stainless, heat resistant, austenitic, etc.) and aluminium or magnesium alloys.

Applications

Shell Garia 601 M-12 and M-22 are neat cutting oils for machining of high alloy steels (stainless, heat resistant, austenitic, etc.) and aluminium or magnesium alloys. The oils show excellent results in working with many difficult operations like broaching, deep-hole drilling, tapping, shaping, and shaving of gears. Shell Garia 601 M-12 and M-22 products are also very good grinding oils.

Performance Features and Benefits

- **Formulation based on hydrotreated mineral oils** - low aromatic content
- **Polar, extreme pressure and anti-wear additives** - provide high load carrying properties
- **Controlled extreme pressure properties** - allows for higher metal removal rate, encouraging lower machining costs
- **Good tool life**
- **Excellent surface finish of machined work pieces**
- **Highly efficient ant-mist additives**

Shell Garia 601 M-12 and M-22 contain active sulphur - there is a risk of staining of yellow metals.

Shell Garia 601 M-12 and M22 are free of chlorine and heavy metals.

Health & Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Protect the environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Typical Physical Characteristics

	Unit	Method	Garia 601 M-12		Garia 601 M-22	
Product Codes			Bulk	5065412	Bulk	tbd
			Drum	5064815	Drum	tbd
			Pail	n/a	Pail	tbd
Appearance			Light brown		Light brown	
Kinematic viscosity						
@ 20 °C	mm^2/s		25		55	
@ 40 °C	mm^2/s	ASTM D 7042	12		22	
@ 100 °C	mm^2/s		3,1		4,5	
Density @ 20° C	kg/m^3	DIN EN ISO 12185	875		875	
Flash Point COC	°F	DIN EN ISO 2592	329		374	
Cu-Corrosion Test		ASTM D 130	4b - 4c		4b - 4c	

These characteristics are typical of current production. While future production will conform to Shell's specification, variations in these characteristics may occur.