



# TECHNICAL DATA

## GB DEFIANCE MULTIGRADE RANGE

### APPLICATIONS

The GB DEFIANCE MULTIGRADE RANGE has been formulated using the highest quality virgin mineral base oils and multifunctional additives for use in mixed fleets under moderate operating conditions. It is suitable for use in turbo-charged diesel engines, naturally aspirated diesel engines and most petrol engines.

### PERFORMANCE FEATURES

The GB DEFIANCE MULTIGRADE RANGE has been developed for use in mixed fleets under moderate operating conditions and offers the following features:

- Excellent anti-wear protection
- Rust and corrosion protection
- Effective control of soot, sludge and piston deposits
- Excellent oxidation and thermal stability

### PERFORMANCE DETAILS

At the viscosity of 15W-40, the following performance claims have been met:

ACEA E2 API CF-4/CF/SG	MERCEDES BENZ p228.1 MAN 271	MTU Type-1 VOLVO VDS
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Q 06093  
ISO 9001



EMS 72776  
ISO 14001



OHS 88475  
OHSAS 18001

# GB LUBRICANTS

## GB DEFIANCE MULTIGRADE RANGE

### CHARACTERISTICS

TEST	TYPICAL PHYSICAL CHARACTERISTICS			UNIT	METHOD
<b>SAE</b>	<b>15W-40</b>	<b>10W-30</b>	<b>20W-40</b>		
Appearance	Clear amber liquid	Clear amber liquid	Clear amber liquid	-	-
Kinematic Viscosity @ 100°C	13.3	9.4	14.0	cSt	-
Kinematic Viscosity @ 40°C	98.7	58.2	120.5	cSt	-
Viscosity Index	133	144	115	-	-
Density	881	871	880	kg/m <sup>3</sup>	-
CCS @ -15°C	-	-	8810	cP	-
CCS @ -20°C	6500	-	-	cP	-
CCS @ -25°C	-	5150	-	cP	-
HTHS @ 150°C	3.70	2.87	3.93	mPa.s	-
Noack	11.1	19.3	7.8	%	-
KO AftVisc	12.53	9.06	13.30	cSt	-
KO % ShLoss	5.59	4.01	4.86	%	-
L38 AftVisc	12.82	9.26	13.63	cSt	-
L38 % ShLoss	3.36	1.90	2.55	%	-
Flash Point	211	201	188	°C	IP 34
Pour Point	-30	-30	-24	°C	IP 15

### STORAGE AND HANDLING

The GB DEFIANCE MULTIGRADE RANGE should be stored under cover to avoid water collecting in the rim of upturned barrels.

### HEALTH, SAFETY AND THE ENVIRONMENT

Further information on the GB DEFIANCE MULTIGRADE RANGE can be obtained by referring to the corresponding Material Safety Data Sheet.

For guidance on storage and handling of all lubricants and related products, GB Lubricants recommend the Environment Agency, [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk), as an excellent source of advice.

If you have any queries, please do not hesitate to contact either your local Technical Sales Representative or our Technical Department.

The Company policy is to ensure that a range of products is supplied which complies with the latest specifications and codes within the relevant industry. As part of this development process, we therefore reserve the right to amend formulations and specifications, without prior notice.