



# Gulf Harmony Synth EE

## Synthetic Hydraulic oil with Energy efficiency

### Product Description

Gulf Harmony Synth EE series are anti-wear hydraulic oils with extra high viscosity index of 180+ specially developed for machinery and equipment operating in extreme climatic conditions. These are formulated with synthetic base oils, highly shear stable polymer and an advanced additive system to meet the stringent requirements of modern hydraulic systems using high pressure high output pumps. They exceed the performance requirements of global industry standards viz. DIN 51524 Part 3 HVLP & ISO 11158 HV and majority of the international OEMs.

### Features & Benefits

- Extremely high viscosity index assures equipment protection at cold start-up temperatures and protects system components at high operating temperatures
- Outstanding thermo-oxidative stability reduces deposit formation, improves pump & valve performance and allows extension of oil and filter change intervals
- Exceptional anti-wear property results in longer pump life and reduced maintenance costs
- Excellent shear stability minimises viscosity loss over time under high shear conditions
- Excellent demulsibility helps in faster separation of water from oil and resists formation of emulsions
- Very good filterability properties under wet and dry conditions
- Capable of increasing Hydraulic pump efficiency upto 6% when tested under standard hydraulic applications.

### Applications

- Hydraulic and power transmission systems of machinery and equipment operating in extreme climatic conditions like Arctic climate area & high temp. area.
- Critical hydraulic systems such as high accuracy numerically controlled machine tools and those employing close clearance servo valves.
- Hydraulic systems for stationary equipment & mobile equipment being used in Industries like steel , cement , mining , construction, wind, plastic Injection molding machines , Heavy duty presses, General engineering etc.

### Specifications, Approvals & Typical Properties

ISO Viscosity grades	46	68
<b>Meets the following Specifications</b>		
DIN 51524 Part 3 HVLP	X	X
ISO 11158 HV	X	X
Denison HF-0, HF-1, HF-2	X	X
<b>Typical Properties</b>		
<b>Test Parameters</b>	<b>ASTM Method</b>	<b>Typical Values</b>
Viscosity @ 40 °C, cSt	D 445	47.5 68
Viscosity Index	D 2270	185 182
Flash Point, °C	D 92	225 230
Pour Point, °C	D 97	-42 -42
Density @ 15°C, Kg/l	D 1298	0.833 0.8439
Rust Test	D 665A/B	Pass Pass
Copper Corrosion (3 hrs @ 100°C)	D 130	1b 1b
Emulsion Test 30 minutes max@ 54 oC	D 1401	Pass Pass
Foam after 10 minutes for all sequences	D 892	Nil Nil
FZG ( A/8.3/90) Fail load stage	D 5182	12 12
Turbine oil oxidation stability, hrs	D 943	6000+ 6000+

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Properties mentioned are typical only and minor variations, which do not affect product performance, are expected to arise in normal manufacturing processes. Please follow equipment manufacturer's recommendations for performance level and viscosity grade. The Safety Data Sheet for this product is available from your nearest Gulf Distributor. Please consult our local representative if any further information is required.

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