# **AMALIE Imperial Turbo Formula Engine Oil**

(05-01-20 edition)

AMALIE Imperial Turbo Formula Engine Oils are formulated to exceed the latest API SP engine oil category. The SAE grades 5W-20, 5W-30 and 10W-30 exceed the requirements of ILSAC GF-6A. These incorporate high viscosity index base oils, shear stable viscosity modifiers and the latest additive technology. They are specifically formulated for the rigorous environment of gas-direct engine (GDI) and turbo gas-direct engine (TGDI) designs as well as providing increased protection for carbureted or normally fuel injected engines. AMALIE Imperial Turbo Formula Engine Oils offer improved performance for wear control, oxidative stability, piston cleanliness, and chain wear over previous API and ILSAC oil categories.

Always consult your vehicle's owner's manual when selecting the appropriate viscosity and service grade.

#### **Benefits:**

- Formulated to Prevent LSPI (Low-Speed Pre-Ignition) in GDI and TGDI Engines.
- Designed to Handle the Extreme Temperatures of Turbo-Charged Engines.
- > Excellent Protection for Metal Components from Rust, Corrosion and Wear.
- Improved Sludge Control.
- Superior Protection Across a Wide Temperature Range.
- Compatible with Conventional and Synthetic Engine Oils.

## **Typical Physical & Chemical Properties**

Imperial Turbo	Kinematic Viscosity @ 100°C, cSt	Kinematic Viscosity @ 40°C, cSt	Viscosity Index	Cold Crank Viscosity, cP	Flash Point °C	Pour Point °C
5W-20*	8.5	50.64	144	6,150 @ -30°C	214	-36
5W-30*	10.5	63.1	157	6,245 @ -30°C	210	-36
10W-30	10.5	72	132	6,500 @ -25°C	220	-36
10W-40	14.5	101.4	148	6,750 @ -25°C	220	-36
15W-40	15	118	133	6,400 @ -20°C	233	-30
20W-50	18	157.5	128	5,500 @ -15°C	244	-33

<sup>\*</sup>Synthetic Blend Formulation

### See Application Chart on Page 2.

#### **Health and Safety**

Safety Data Sheets (SDS) are available on line at AMALIE.com or from your AMALIE Representative.



# **AMALIE Imperial Turbo Engine Oils Application Chart**

SPECIFICATIONS	Imperial Turbo 5W-20	Imperial Turbo 5W-30	Imperial Turbo 10W-30	Imperial Turbo 10W-40	Imperial Turbo 15W40	Imperial Turbo 20W-50
API:						
SP, SN / SN Plus, SN, SM	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
CF	*	*	*	*	*	*
ILSAC:						
GF-6A, GF-5, GF-4, GF-3	GF-6A	GF-6A	GF-6A	-	-	-
Ford:						
M2C 960-A (M2C 945)	V	-	-	-	-	-
M2C 961-A (M2C 946)	-	V	-	-	-	-
General Motors:						
GM 6094M	√	V	√	-	-	-
Toyota	V	V	√	V	V	V
Hyundai	V	V	V	V	V	V
Kia	√	V	V	V	V	V
Nissan	V	V	V	V	V	V
Honda	V	V	<b>√</b>	V	V	V
CID AA-52039	√	√	<b>√</b>	V	V	√
Mil-L-2104-B	V	V	√	√	V	V
Mil-L-46152	V	V	V	$\sqrt{}$	V	V

 $<sup>\</sup>sqrt{\ }$  - Exceeds Performance Requirements

Some OEM Specifications are Viscosity Specific. Please Consult your AMALIE Representative. Updated May 2020.

<sup>\* -</sup> Suitable for use