

# ONYX 51555

## Automotive Engine Oil Additive Package

#### **DESCRIPTION:**

ONYX 51555 is a treat optimized performance package designed for mid-tier API categories. It exhibits excellent deposits, wear and oxidation control in severely operated gasoline and diesel engines. ONYX 51555 is developed to meet the requirements for an economical and cascadable additive system with minimum logistics complexity. Cascade system is developed to meet lower performances down to API SB/CB.

## **PERFORMANCE**

When blended with appropriate base stock(s) and viscosity modifiers, the formulated lubricant meets the following performance specifications.

API Specification	Mass%	BN
SL/CF-4	6.40	9.2
SJ/CF-4	5.71	8.3
CF-4/SG	7.85	11.3
SG/CD	5.0	8
CF/SF	7.14	10
CF	5.35	7.7
CD/SF	5	7
SF/CD	4.28	6
CC/SC	2.86	4
SB/CB	2.14	3

#### PHYSICAL / CHEMICAL CHARACTERISTICS

Parameters	Test Methods	Specifications	Typical Value
Viscosity@ 100°C, cSt	ASTM D445	Report	60
BN, mgKOH/g	ASTM D2896	min 130	144
Calcium, % Wt	ASTM D4951	3.79 - 5.60	4.74
Zinc, % Wt	ASTM D4951	1.40 - 2.0	1.79
Phosphorus % Wt	ASTM D4951	1.25 - 1.80	1.57
Molybdenum % Wt	ASTM D4951	0.02 - 0.40	0.032
Nitrogen % Wt	ASTM D5291	0.6 - 0.85	0.73
Flash Point (PMCC), °C	ASTM D93	>180	Report
Specific Gravity @15.6 °C	ASTM D1298	Report	1.03

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# **GENERAL HANDLING INSTRUCTIONS:**

Neoprene or nitrile rubber gloves and safety goggles should be worn for handling. Material safety data sheet should be consulted for specific information and for information on health and safety.

# **Temperature Recommendations:**

Unloading:	Temperature	
Pumping temperature	60°C	140°F
Maximum temperature	70°C	158°F
Storage:		
Maximum temperature for long term storage	45°C	113°F
Blending:		
Max. Base oil temperature for mechanical or in-line mixing	70°C	158°F

# **Equipment Recommendations**

Type of Pump	Positive Displacement	
Type of transfer line	Ball lunched, Insulated, Steam Traced Using 107°C/225F Steam Max.	
Transfer Line Size	2-3inch/5-8cm.	

## **Heat Source:**

Туре	Steam 107°C/225°F max.
Storage Tank Suction Heater Recommended	