

# TOUGHIVAL®

### **STATIONARY ENGINE COOLANTS**

#### **Built for Maximum Durability and Protection**

ToughinAL® Heavy Duty Stationary Engine Coolants are specially formulated for the demanding requirements of stationary engines. This glycol-based line of thermal products is fortified with a superior state-of-the-art inhibitor and dispersant package that protects against premature corrosion and metal cavitation and enhances fluid durability and equipment life. ToughinAL® was chosen by customers over heavy-duty pre-charge because it has significantly less inhibitor loss and a lower cost of ownership.

Over a three month study of ToughinAL® versus HD PC, utilizing a CAT 3520 at 230° F in continuous operation, ToughinAL® met ASTM D6210 chemical requirements post-study.

**Cost of Ownership** 

	Standard	ToughinAL®	ToughinAL®	ToughinAL®
	HD PC Coolant	EG HD	EG N	EG NF
Total Cost (%)	Base	-45%	-63%	-70%

#### ToughinAL® EG HD

- Formulated with virgin ethylene glycol for superior hear transfer capabilities and more efficient freeze protection
- Hybrid technology
- Proven heavy duty protection: 63% less inhibitor loss compared to conventional heavy duty coolant
- Works in most heavy duty applications
- Ideal for use in applications using CAT NGEC/DEAC and most other stationary engine coolant OEMs
- Maintain using ToughinAL SCA

#### ToughinAL® EG N

- Formulated with virgin ethylene glycol for superior heat transfer capabilities and more efficient freeze protection
- Proven heavy duty protection: meets or exceeds ASTM D6210 requirements
- Nitrited OAT technology provides extended service life
- Molybdate extends heavy duty cavitation protection beyond that of a conventional technology coolant
- Ideal for CAT EC-1, GE Waukesha, Agco/Massey Ferguson, MWM Deutz, and MTU. Works in most heavy duty applications
- Maintain using ToughinAL Extender N

#### ToughinAL® EG NF

- Formulated with virgin ethylene glycol for superior hear transfer capabilities and more efficient freeze protection
- Proven heavy duty protection: meets or exceeds ASTM D6210 requirements
- More forgiving in harsh environments: nitrite-free organic acid technology for better resistance to high heat applications and extended life protection
- Molybdate extends heavy duty cavitation protection beyond that of a conventional technology coolant
- State-of-the-art technology for modern heavy duty engines
- Ideal for GE Jenbacher, MAN, MWM Deutz, and MTU

#### ToughinAL® PG

- Formulated with virgin propylene glycol for superior hear transfer capabilities and more efficient freeze protection
- Proven heavy duty protection: meets or exceeds ASTM D6210 requirements
- Recommended for customers requiring the lower toxicity of a PG-based coolant
- Works in most heavy duty applications

## ToughinAL® Stationary Engine Coolants are used in these applications:

Stationary Engines
Line Heaters

**Natural Gas Well Head Heaters** 

LNG Vaporizers
Oil Refineries

**Power Generating** 

**Chemical Manufacturers** 

**Combustion Air Pre-Heaters** 

**Marine Engines** 

**Standby Generators** 

**Drilling Equipment** 

**Compressor Engines** 

**Process Heating and Cooling** 

**Solar and Radiant Heating Systems** 

## ToughinAL® Stationary Engine Coolants can be used in these systems\*:

Agco	John Deere
Ajax	Kubota
Caterpillar	MAN
Cooper Bessemer	Mercedes
Cummins	MTU
Deutz	MWM
<b>Dresser-Rand</b>	Navistar
Enterprise	Siemens
Fendt	Superior
Guascor	Volvo/Mack
International	Waukesha

\*Contact your sales representative for more information regarding specific specifications or OEMs that are not listed.

### **ToughinAL® Stationary Engine Coolants**

	ToughinAL® Stationary Engine Coolant			
Typical Properties	EG HD 50/50	EG N 50/50	EG NF 50/50	PG 50/50
Color	Teal	Red	Red	Yellow
Glycol	Ethylene Glycol	Ethylene Glycol	Ethylene Glycol	Propylene Glyco
Specific Gravity @ 68°F	1.084	1.078	1.080	1.043
рН	8.0-8.8	8.2 - 9.0	8.2 - 9.0	10.2 - 10.8
Reserve Alkalinity, ml	5.0 Min	1.8 Typical	3.0 Min	2.2 Min
Freeze Point, F° (C°)	-34(-37) Max	-34(-37) Max	-34(-37) Max	-24(-31) Max
Service Check Interval, Hrs.	3,000	6,000	6,000	500
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Helpful Shipping	ToughinAL® Stationary Engine Coolant				
Information	EG HD 50/50	EG N 50/50	EG NF 50/50	PG 50/50	
Steel Drums Qty	55 Gallons	55 Gallons	55 Gallons	55 Gallons	
Package Dimensions	23.5" x 34.5"	23.5" x 34.5"	23.5"x 34.5"	23.5" x 34.5"	
Gross Container Weight	≈532 Pounds	≈530 Pounds	≈533 Pounds	≈505 Pounds	
Gross Weight on Pallet	≈2191 Pounds	≈2183 Pounds	≈2196 Pounds	≈2081 Pounds	
Quantity Per Pallet	4	4	4	4	
Pallet Dimensions	48" x 48" x 39.4"	48" x 48" x 39.4"	48" x 48" x 39.4"	48" x 48" x 39.4"	
Dilution	50/50	50/50	50/50	50/50	

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#### ToughinAL® Stationary Engine Coolant Products Available

Product Name	Dilution	Size	Part Number	UPC Code
Toughinal EG HD	50/50	Bulk	10094	N/A
Toughinal EG HD	50/50	Tote	10093	652138101007
Toughinal EG HD	50/50	Drum	12173	652138100994
ToughinAL EG N	50/50	Bulk	12116	N/A
ToughinAL EG N	50/50	Tote	12118	652138104213
ToughinAL EG N	50/50	Drum	12117	652138104206
Toughinal EG NF	50/50	Bulk	10091	N/A
ToughinAL EG NF	50/50	Tote	11593	652138100987
Toughinal EG NF	50/50	Drum	10092	652138101021
Toughinal PG	50/50	Bulk	10088	N/A
Toughinal PG	50/50	Tote	12203	652138104268
Toughinal PG	50/50	Drum	12202	652138104275
ToughinAL SCA	RTU	Pail	Coming Soon	
ToughinAL Extender N	RTU	Pail	Coming Soon	



**Jenbacher**