SSR ULTRA COOLANT

Material Compatibility

The formulation of Ultra Coolant is such that it is compatible with most synthetic and non-synthetic elastomers, gaskets, and other sealing materials. Since temperature plays a vital role in determining compatibility between products, Ultra Coolant has been tested and proved compatible at elevated temperatures with all approved gaskets and seals used in Ingersoll-Rand rotary screw air compressors supplied after 1981. For additional information or assistance with compatibility issues, contact your Ingersoll-Rand representative.

Sealing Materials: Ultra Coolant is compatible with almost all elastomers used in seals, o-rings, and gaskets in air compressors.

Plastics: As with most synthetic materials, the compatibility of most plastics with Ultra Coolant depends largely upon operating temperatures. All compatibility studies have been performed at elevated temperatures. However, the ability of many plastics to withstand repeated pressure cycles is usually less than satisfactory. For this reason, users are not encouraged to use plastic pipe for air discharge or distribution, regardless of the coolant/lubricant basestock being used.

Paints: The table lists the compatibility of Ultra Coolant with **cured** paints. In **spray painting** applications, the small amount of Ultra Coolant vapour in the air stream has not been shown to cause paint defects such as fish-eye or adhesion problems when used with lacquers, enamels, epoxies, and polyurethanes. Each user should verify compatibility in their own painting system.

Sealing Materials

Compatible	Not Compatible
Butyl Rubber	Low Nitrile Buna N[4]
Ethylene Propylene Rubber (EPR)	Natural Rubber
Ethylene Propylene Terpolymer (EPT, EPDM)	Polyurethane Elastomers
High Nitrile Buna N[1]	
Medium Nitrile Buna N[2]	
Neoprene	
(Nylon) Polyamide	
Polythylene	
Polyurethane Foam	
Silicone Rubber	
Teflon[3]	
Viton[3]	

Plastics

Compatible	Not Compatible
Celcon[5]	Acrylics
Delrin[3]	Acrylonitrile Butadiene Styrene (ABS)
Epoxy Resins	Polyvinyl Chloride (PVC)
Epoxy/Phenolic Resins	
Flurocarbons	
Nylon (Polyamide)	
Polythylene	
Polypropylene	
Teflon[3]	

Paints

Compatible	Not Compatible
Baked Phenolics	Acrylic
Epoxy	Lacquer
Oil Resistant Alkyd	Latex
	Polyurethane
	Varnish

1 (>36% acrylonitrile)
2 (30-36 acrylonitrile)
3 Registered trademark of E.I. Dupont Corporation
4 (<30% acrylonitrile)
5 Registered trademark of Celanese Corporation

INGERSOLL-RAND®
AIR COMPRESSORS

SSR ULTRA COOLANT

TECHNICAL DATA

Typical Properties of SSR ULTRA COOLANT
Synthetic Rotary Screw Air Compressor Coolant

Property	Test Method	Performance
SAE Viscosity Classification	SAE J300	10W-20
ISO Viscosity Classification	ASTM D2422	46
Viscosity Index	ASTM D2270	172
Viscosity, cSt (SUS),		
@ -17.8°C/0°F	ASTM D445	11120 (2400)
@ 37.8°C/100°F	ASTM D445	242 (52)
@ 40°C/104°F	ASTM D445	223 (48)
@ 98.9°C/210°F	ASTM D445	56 (9.1)
@ 100°C/212°F	ASTM D445	55.8 (9.0)
Pour Point, °C (°F)	ASTM D97	-50 (-58)
Flash Point, °C (°F)	ASTM D92	271 (520)
Autoignition Temperature, °C (°F)	ASTM E659	388 (731)
Copper Strip Corrosion, 3 hrs. @ 100°C/212°F	ASTM D130	1A
4-Ball Wear, 40kg, 1 hr., 1800 RPM, (mm)	ASTM D2783	0.77
Weld Point, kg	ASTM D2783	130
Evaporation Loss, %, 149°C/300°F, 73 hrs.	ASTM D2878	0.53
Specific Gravity 25/25°C	ASTM D941	0.9901
Ferrous Metal Corrosion (Rust Test)		
Distilled Water	ASTM D665A	Pass
Synthetic Sea Water	ASTM D665B	Pass
Foam Tendency (Sequence I, II, III)	ASTM D892	Nil
Density (Grams per CC @ 25°C)	ASTM D941	0.9872
Total Acid Number	ASTM D664	0.05
pH	ASTM D664	9
High Pressure Oxidation Test (Hr.)	ASTM D2272	18
Specific Heat, cal/gm/°C, @ 88°C/190°F		0.497
Thermal Conductivity, cal/(cm)(sec.)(°C)		
@ 25°C/77°F		3.62
@ 65°C/149°F		3.51
@ 95°C/203°F		3.43
Coefficient of expansion, %/°C (%/°F)		0.073 (0.04)