

# Minarex

Processing Oil **PERTAMINA**

Minarex aromatic processing for tyre and rubber industry that is manufactured in Refinery Unit IV Cilacap. Pertamina produces three types of aromatic processing oil, those are :

- Minarex I
- Minarex H (Hybrid)
- Minarex A

The production capacity of each type are between 12.000 - 20.000 tons per year.

- Minarex can used as processing aid in the manufactures of rubber compound which have benefits as follow :

- Increase the softening and elasticity of rubber process
- decrease rubber compound viscosity. This material will help disperse the carbon black into molecules that improve the properties of rubber compound.

- Minarex can used as secondary plasticizer in PVC compound that is used as DOP (Diactyl Phthalate) substitution which have benefits as follow :

- Decrease PVC molecules viscosity
- improve compound homogenization quality
- finished product will be more flexible

- Minarex also be used as solvent in printing ink industry.

## Product Specification

NO.	SPECIFICATION		METHOD	MIN	MAX
1	Specific Gravity at 60 / 60	°F	ASTM D - 1298	1.021	1.0305
2	Aniline Point	°C	ASTM D - 611	31	37
3	Colour ASTM, 1 % dilution		ASTM D - 1500	-	2
4	Flash Point C.O.C	°F	ASTM D - 92	460	-
5	Pour Point	°F	ASTM D - 97	-	85
6	Refractive Index at 20 ° C		ASTM D - 1218	1.585	1.593
7	Viscosity Gravity Constant		ASTM D - 2501	0.983	0.9935
8	Viscosity, kinematic at 210 °F	cSt	ASTM D - 445	15.5	17.8
9	Viscosity saybolt 210 o F	SUS	ASTM D - 2161	80	89

						Minarex H	
NO.	SPECIFICATION		METHOD	MIN	MAX		
1	Specific Gravity at 60 / 60	°F	ASTM D - 1298	1.03	1.2		
2	Aniline Point	°C	ASTM D - 611	22	53		
3	Colour ASTM, 1 % dilution		ASTM D - 1500	-	2		
4	Flash Point C.O.C	°F	ASTM D - 92	425	-		
5	Pour Point	°F	ASTM D - 97	-	85		
6	Refractive Index at 20 ° C		ASTM D - 1218	1.592	1.6195		
7	Viscosity Gravity Constant		ASTM D - 2501	0.991	1.1405		
8	Viscosity, kinematic at 210 °F	cSt	ASTM D - 445	20	36.8		
9	Viscosity saybolt 210 o F	SUS	ASTM D - 2161	98	174		

						Minarex A	
NO.	SPECIFICATION		METHOD	MIN	MAX		
1	Specific Gravity at 60 / 60	°F	ASTM D - 1298	0.98	1.02		
2	Aniline Point	°C	ASTM D - 611	16	21		
3	Colour ASTM, 1 % dilution		ASTM D - 1500	-	1		
4	Flash Point C.O.C	°F	ASTM D - 92	380	-		
5	Pour Point	°F	ASTM D - 97	-	60		
6	Refractive Index at 20 ° C		ASTM D - 1218	1.5625	1.576		
7	Viscosity Gravity Constant		ASTM D - 2501	0.954	0.982		
8	Viscosity, kinematic at 210 °F	cSt	ASTM D - 445	6	9		
9	Viscosity saybolt 210 o F	SUS	ASTM D - 2161	46	56		

The specification above is valid when printed, for actual specification please contact Pertamina