





Extruded Product

### **BIO-DEGRADABLE LOW PCA OIL - REACH COMPLIANT**

PROPERTIES	PERTIES UNITS TEST METHO		AES - 200G	AES - 514	AES - 512	
Appearance	Attribute	Visual	Opaque Liquid	Opaque Liquid	Opaque Liquid	
Colour	Number	ASTM D-1500	Dark Brown	Dark Brown	Dark Brown	
Viscosity @ 100°C	Cst	ASTM D - 445	25 ± 5	35 ± 5	14 ± 3	
Density @ 30°C	gms/cc	ASTM D - 445 0.950± 0.05 0.96		$0.96 \pm 0.05$	0.950± 0.05	
Flash Point	°C	ASTM D - 92	Min 230	Min 220	Min 220	
Aniline Point	°C	ASTM D - 611	30 ± 10	60 ± 10	65 ± 10	
Pour Point	°C	ASTM D - 97	25 ± 5	Max 25	Max 30	
Volatile Matter at 100°C / 2 hrs.	%	ASTM D - 972	Max 1.0	Max 1.0	Max 1.0	
Carbon Type Analysis CA CN CP	% %	ASTM D 2140	NOT APPLICABLE			
Compatibility			NR, SBR & PBR			
Application			Automotive & OTR Tyre, Retread Rubber, Mats, Moulded & Extruded Product	Cost competitive Product, Automotive Tyre, Retread Rubber, Mats, Moulded & Extruded Product	Rubber Mats, Moulded & Extruded Product	



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MANS INDUSTRIES PVT. LTD



## **WITPR** Rubber Process Oils



## WITMANS INDUSTRIES PVT. LTD. Lubricanting The Growth

# WITPR

## Rubber Process Oils

- Established capacity of over 60,000 MT. per annum.
- Witmans formulates customized & tailor made rubber process oils.
- Witprol Rubber process oils are very well appreciated by domestic & international Automotive & OTR Tyre, Tubes and Rubber products manufacturer.

Witmans manufactures a wide range of standard and modified rubber process oils to cater to manufacturers of NR, SBR, PBR, Butyl and EPDM based rubber Products.

Most common usage is mainly in Automotive & OTR tyres, Tubes, Moulded goods. White goods, Textiles and Biomedical applications. Witmans offers comprehensive range of Aromatic, Paraffinic and Naphthenic Rubber process oils which meets the requirements of rubber industries. Witprol Rubber Process oils have following characteristics:

- Assists in the mixing operations. •
- Improves processability. ٠
- Reduces compounding time. •
- Modify the physical properties and enhanced surface finish.
- Easy mold release

### **Products**

Aromatic Oils: Aromatic Oils are generally dark in colour & has good solvency and compatible with wide range of rubbers like NR, SBR, and PBR. It is suitable to be used in the manufacture of Automotive & OTR Tyre, beltings, mats, molded rubber parts etc.

Naphthenic Oils: These oils have good colour stability and adequate high temperature properties. It is extensively used in the manufacturing of foot wear, hot water bags, light coloured moulded & extruded products. These oils are compatible with NR, SBR, PBR, EPDM and IIR.

Paraffinic Oils: These are light Paraffinic type of oils having moderate to high viscosity and high flash point. These are recommended to be used with EPDM based rubber product & Butyl rubbers for processing of Extruded goods, Automobile tubes, Conveyor belts, Moulded rubber articles etc.

Bio-Degradable - REACh Compliant Low PCA Oils : These are Eco Friendly New Generation Green Oils meeting EU requirements, having PCA less than 3% as per IP 346 method.

PARAMETERS			AROMAT	IC OILS	NAPHTHENIC OILS			
PROPERTIES	UNITS	TEST METHODS	A - 711	A - 712	N - 520	N - 540	N - 840	
Appearance	Attribute	Visual	Opaque Liquid	Opaque Liquid	Yellow Clear Liquid	Opaque Liquid	Clear & Bright	
Colour	Number	ASTM D - 1500	Greenish Brown	Dark Brown	-	Dark Brown	-	
		ASTM D - 1544	-	-	Max 3.0	-	Max 3.0	
Viscosity @ 40°C	Cst	ASTM D - 445	-	-	23 ± 5	75 ± 5	350 ± 25	
Viscosity @ 100°C	Cst	ASTM D - 445	35 ± 15	30 ± 5	-	-	-	
Density @ 30°C	gms/cc	ASTM D - 445	$0.98 \pm 0.05$	0.96 ± 0.05	$0.895 \pm 0.03$	0.910 ± 0.05	0.94 ± 0.03	
Flash Point	°C	ASTM D - 92	Min. 230	Min. 210	Min 140	Min. 220	Min. 210	
Aniline Point	°C	ASTM D - 611	35 ± 15	Max. 40	72 ± 5	70 ± 10	90 ± 5	
Pour Point	°C	ASTM D - 97	Max. 25	Max. 25	Max 30	Max 0	Max 0	
Volatile Matter at 100°C / 2 hrs.	%	ASTM D-972	Max 1.0	Max 1.5	Max . 7.0	Max 1.5	Max. 1.5	
Carbon Type Analysis		ASTM D 2140	Typical	NA	Typical	Typical	Typical	
CA	%		42	-	14	18	12	
CN	%		22	-	38	34	34	
CP	%		36	-	48	48	54	
Compatibility			NR, SBR & PBR	NR, SBR &PBR	NR, SBR & PBR, EDPM, Butyl			
Application		Automotive & OTR Tyre, Retread Rubber, Moulded & Extruded Product. Convevor Belts.		Extruded & Moulded Articles, Micro, Hawai Sheets, LPG Tubes, Shoes Soles, Automotive Tubes LPG Tubes, Shoe soles, Automotive Tubes				

PARAMETERS			PARAFFINIC OILS			PARAFFINIC OILS AS SECONDARY PLASTICIZERS		
PROPERTIES	UNITS	TEST METH- ODS	P - 147	P - 248	P-248 N	P - 04 W	P - 145 W	P - 100 W
Appearance	Attribute	Visual	Clear Liquid	Clear Liquid	Clear Liquid	Clear Liquid	Clear Liquid	Clear Liquid
Colour	Number	ASTM D-1500	-	-	-	-	-	-
		ASTM D-1544	Max 15.0	Max 12.0	Max 15.0	Max. 1.0	Max 0.5	Max. 0.5
Viscosity @ 40°C	Cst	ASTM D - 445	30 - 45	$460 \pm 40$	460 ± 40	18 ± 03	30 ± 5	100 ± 10
Density @ 30°C	gms/cc	ASTM D - 445	0.870 ± 0.05	0.880 ± 0.05	0.880 ± 0.05	0.845 ± 0.05	0.825±0.05	0.855±0.05
Flash Point	°C	ASTM D - 92	Min. 180	Min 240	Min 240	Min. 190	Min. 210	Min. 250
Aniline Point	°C	ASTM D - 611	Min. 90	Min.105	Min 100	Min. 100	Min. 100	Min. 105
Pour Point	°C	ASTM D - 97	Max. 0	Max. 1.0	Max. 1.0	Max 1	Max. 0	Max1
Volatile Matter at 100°C / 2 hrs.	%	ASTM D - 972	Max. 1.0	Max 0.5	Max 0.5	Max 1.5	Max 1.0	Max 0.5
Carbon Type Analysis		ASTM D 2140	Typical	Typical	Typical	Typical	Typical	Typical
CA	%		8	8	12	2	2	2
CN	%		22	22	22	33	33	33
CP	%		70	70	66	65	65	65
Compatibility			EPDM, IIR	EPDM, IIR	EPDM, IIR	EPDM, POLYSTYRENE		ENE
,	Ápplication Profiles, Co		Profiles, Con- veyor Belts,	Oil extended EPDM Rubber & Profile, Heat Resistant conveyor Belts, Steam Hoses & Butyl Tubes	Oil extended EPDM Rubber, Microwave / LCM Cured EPDM Profiles, Heat Resistant conveyor Belts, Steam Hoses & Butyl Tubes	Thermoplastic Elastomers, Mas- terbatches, Butyl Tubes, Radiator Hoses, Heat Resistant conveyor Belt, Washing Machine Gasket		