

# INDUSTRIAL & MARINE ENGINE OILS

- *Salyx Series*
- *Medripal Series*
- *Meditran P Series*
- *Meditran SMX Series*
- *Diloka 448 X Series*

SALYX 12,15,20,30,40,50□

PELUMAS MESIN DIESEL PUTARAN MENENGAH

Pelumas	Characteristic	Testing Method	SALYX			
			330	430	440	450
Salyx 12 Series	SAE Viscosity Grade		30	40	40	40
Salyx 15 Series	Viscosity Kinematic, at 40 °C, cSt		100.0	144.8	147.8	144.6
Salyx 20 Series	Viscosity Kinematic, at 100 °C, cSt	D - 445	11.4	14.9	15.0	14.5
Salyx 30 Series	Specific density, 15 °C	D - 4052	0.905	0.905	0.911	0.917
Salyx 40 Series	Colour ASTM	D - 1500	L4.0	L5.0	L7.5	> 8.0
Salyx 50 Series	Flash Point (COC), °C	D - 92	252	237	237	249
	Pour Point, °C	D - 97	-21	-18	-18	-21
	TBN, mg KOH/g	D - 2896	30.68	32.16	42.48	53.56

  

**TYPICAL CHARACTERIS**

Characterist							
SAE Viscosity Gr	D - 2270	Min 95					
Viscosity Kinematic, at 40 °C, cSt	D - 445	106.4	145.3	105.7	160.2	102.2	140.8
Viscosity Kinematic, at 100 °C, cSt		11.54	14.5	11.8	14.9	11.5	15.0
Viscosity Index	D - 2270	Min 95					
Specific density, 15 °C	D - 4052	0.889	0.896	0.891	0.899	0.894	0.897
Colour ASTM	D - 1500	3.0	3.5	L3.5	3.5	L4.0	L4.5
Flash Point (COC), °C	D - 92	248	264	250	266	255	240
Pour Point, °C	D - 97	-18	-18	-18	-18	-18	-18
TBN, mg KOH/g	D - 2896	12.7	12.48	16.14	16.14	20.83	21.38

SALYX 570□ MINYAK LUMAS MESIN DIESEL INDUSTRI DAN PERKAPALAN

**TYPICAL CHARACTERISTIC**

**KARAKTERISTIK TIPIKAL**

No.	Typical Characteristics	ASTM Method	SALYX 570	SALYX 540
1	No. SAE		50	50
2	Density at 15 °C (kg/L)	D-4052	0.932	0.909
3	Viscosity Kinematic, at 40 °C, cST at 100 °C, cST	D-445 D-445	226.11 19.85	191.7 19.8
4	Viscosity Index	D-2270	100	-
5	Colour ASTM	D-1500	Dark	L.65
6	Flash Point (°C)	D-92	274	272
7	Pour Point (°C)	D-5950	-18	-21
8	Total Base Number (mg KOH/g)	D-2896	71.69	42.30

**SALYX 8 SERIES □PELUMAS MESIN DIESEL INDUSTRI & PERKAPALAN**

**TYPICAL CHARACTERISTIC**

**KARAKTERISTIK TIPIKAL**

No.	Typical Characteristics	ASTM Method	SALYX	
			308	408
1	SAE Viscosity Grade		30	40
2	Density at 15 °C (kg/L)	D-4052	0.8869	0.8921
3	Viscosity Kinematic, at 40 °C, cST at 100 °C, cST	D-445 D-445	102.10 11.51	153.32 14.94
4	Viscosity Index	D-2270	99	97
5	Colour ASTM	D-1500	L3.5	L3.0
6	Flash Point (°C)	D-92	255	264
7	Pour Point (°C)	D-5950	-18	-18
8	Total Base Number (mg KOH/g)	D-2896	8.30	8.86

**MEDRIPAL 11, 12, 20, 30, 40, 50 □  
PELUMAS MESIN DIESEL PUTARAN MENENGAH**

PERTAMINA  
LUBRICANTS

Characteristic	Testing Method	MEDRIPAL				
		330	430	440	540	450
SAE Viscosity Grade		30	40	40	50	40
Viscosity Kinematic, at 40 °C, cSt at 100 °C, cSt	D - 445	104.70 11.8	141.40 14.6	146.1 14.9	229.1 19.7	150.4 18.9
Specific density, 15 °C	D - 4052	0.896	0.907	0.912	0.915	0.916
Colour ASTM	D - 1500	L5.0	L5.5	L6.0	L6.5	7.5
Flash Point (COC), °C	D - 92	240	237	249	243	246
Pour Point, °C	D - 97	-18	-21	-18	-18	-18
TBN, mg KOH/g	D - 2896	31.30	32.24	43.59	41.83	50.66

Characteristic	Testing Method	MEDRIPAL						
		311	411	312	412	512	320	420
SAE Viscosity Grade		30	40	30	40	50	30	40
Viscosity Kinematic, at 40 °C, cSt at 100 °C, cSt	D - 445	107.2 11.8	141.7 14.3	107.1 11.8	140.2 14.2	227.8 19.3	106.5 11.9	150.3 14.9
Specific density, 15 °C	D - 4052	0.891	0.895	0.893	0.896	0.901	0.895	0.898
Colour ASTM	D - 1500	4.0	4.0	4.0	4.5	4.0	L4.5	L4.5
Flash Point (COC), °C	D - 92	273	274	278	281	281	240	255
Pour Point, °C	D - 97	-18	-18	-18	-18	-9	-18	-18
TBN, mg KOH/g	D - 2896	11.84	11.84	15.13	15.25	15.72	20.64	20.64

## MEDITRAN P □ PELUMAS MESIN DIESEL INDUSTRI DAN PERKAPALAN

### TYPICAL CHARACTERISTIC

### KARAKTERISTIK TIPIKAL

Characteristic	MEDITRAN P 30	MEDITRAN P 40	MEDITRAN P 50
No. SAE Viscosity Grade	30	40	50
Viscosity Kinematic, at 40 °C, cSt at 100 °C, cSt	119.93 10.84	174.39 14.40	272.02 19.00
Viscosity Index	Min 95	Min 95	Min 95
Specific density, 15 °C	0.9134	0.9089	0.9139
Colour ASTM	4.5	L5.5	5.0
Flash Point (COC), °C	231	246	249
Pour Point, °C	-27	-18	-9
Total Base Number (TBN), mg KOH/g	18.50	18.50	18.48

## MEDITRAN SMX 15W-40 □ MINYAK LUMAS MESIN DIESEL PUTARAN TINGGI DENGAN KEKENTALAN GANDA (MULTIGRADE)

TYPICAL CHARACTERISTIC

KARAKTERISTIK TIPIKAL

No.	Typical Characteristics	ASTM Method	MEDITRAN SMX SAE 40
1	No. SAE		15 W - 40
2	Density at 15 °C (kg/L)	D-4052	0.8860
3	Viscosity Kinematic, at 40 °C, cST at 100 °C, cST	D-445	112.01
		D-445	14.99
4	Viscosity Index	D-2270	139
5	Colour ASTM	D-1500	L 4.0
6	Flash Point (°C)	D-92	216
7	Pour Point (°C)	D-5950	-24
8	Total Base Number (mg KOH/g)	D-2896	11.35
9	Apparent Viscosity at -20 °C, cps	D-5293	6800

## MEDITRAN SMX- 40 □ MINYAK LUMAS MESIN DIESEL TUGAS BERAT

TYPICAL CHARACTERISTIC

KARAKTERISTIK TIPIKAL

Typical Characteristics	Testing Method	Test Result Typical
No. SAE Viscosity Grade		40
Specific density, 15 °C	D - 4052	0.8940
Viscosity Kinematic, at 40 °C, cSt at 100 °C, cSt	D - 445	136.00
	D - 2270	14.72
Viscosity Index		108
Colour ASTM	D - 1500	L 3.5
Flash Point (COC), °C	D - 92	251
Pour Point, °C	D - 97	-24
Total Base Number (TBN), mg KOH/g	D - 2896	11.48
Demulsibility	D - 874	14/39/0(60')

## DILOKA 448 X □ MINYAK LUMAS MESIN LOKOMOTIF KERETA API

TYPICAL CHARACTERISTIC

KARAKTERISTIK TIPIKAL

No.	Typical Characteristics	ASTM Method	Diloka 448 X
1	No. SAE		40
2	Density at 15 °C (kg/L)	D-4052	0.8967
3	Viscosity Kinematic, at 40 °C, cST at 100 °C, cST	D-445	144.80
		D-445	14.87
4	Viscosity Index	D-2270	Min 95
5	Colour ASTM	D-1500	4.0
6	Flash Point (°C)	D-92	268
7	Pour Point (°C)	D-5950	-9
8	Total Base Number (mg KOH/g)	D-2896	13.52