



Ergon renewable oils for the rubber industry.

WITH THE GROWING DEMAND for rubber and tire companies to meet ESG requirements and renewable goals, Ergon offers two lines of chemistries to give customers options to achieve this in different ways.

ERGON
UNITED BY SERVICE. DRIVEN BY SOLUTIONS.

ERGON RBD VEGETABLE OILS

Providing a fully renewable solution for your compound needs, while enhancing performance through chemistry. Ergon's refined, bleached and deodorized (RBD) vegetable oils are utilized by those customers wanting 100% renewable oil in their applications. These products are proven in polar rubber compounds to provide a wide variety of performance enhancements.

BENEFITS TO YOUR APPLICATION'S NEEDS:

- Meeting corporate ESG and renewable goals
- Increasing solvency and functionality in your rubber process oil
- Superior Tg that provides low-temperature performance gains
- Improved processability and lower volatility
- Lower phr loadings achievable, allowing for additional additives to tailor grip and rolling resistance properties



Ergon has been supplying and supporting this chemistry to the tire and rubber industry for many years. Please use us as a resource to reach your company's renewable raw material goals.

TEST METHODS	PROPERTY	RBD SOYBEAN	RBD RAPESEED	HIGH OLEIC SUNFLOWER
Cd 1c-85	Iodine Value	124-139	105-126	80-90
Ca 2e-84	Karl Fischer Moisture	0.05% Max	0.05% Max	0.05% Max
Ca 5a-40	Free Fatty Acids	0.1% Max	0.1% Max	0.1% Max
Ce 1a-13	Fatty Acid Profile			
	C14:0 Myristic	ND-0.2%	ND-0.2%	ND-0.1%
	C16:0 Palmitic	8.0-14.5%	2.5-7.0%	2.6-5.0%
	C16:1 Palmitoleic	ND-0.2%	ND-0.6%	ND-0.2%
	C18:0 Stearic	2.0-5.6%	0.8-3.0%	2.0-6.2%
	C18:1 Oleic	17.0-32.0%	51.0-70.0%	78.0-90.7%
	C18:2 Linoleic	46.0-59.0%	15.0-30.0%	2.1-17.0%
	C18:3 Linolenic	4.5-11.0%	5.0-14.0%	ND-0.3%
	C20:0 Arachidic	0.1-0.6%	0.2-1.2%	0.2-0.5%
	C20:1 Gadoleic	ND-0.5%	0.1-4.3%	0.1-0.5%
	C22:0 Behenic	ND-0.7%	ND-0.6%	0.3-1.6%
	C22:1 Erucic	ND-0.3%	ND-2.0%	ND-0.3%
	C24:0 Lignoceric	ND-0.5%	ND-0.3%	ND-0.5%
ASTM D4052	Specific Gravity	0.919-0.925	0.914-0.920	0.916
ASTM D2161	Viscosity SUS @ 100°F	157	181	201
ASTM D445	Viscosity cSt @ 40°C	31.28	35.95	39.85
ASTM D445	Viscosity cSt @ 100°C	7.56	8.14	8.54
ASTM D92	Flash Point °C, COC	326	335	340
ASTM D5949	Pour Point °C	-9	-22	-22
ASTM D664	Acid Number mg KOH/g	0.14	0.12	0.14
ASTM D1218	Refractive Index, 20°C	1.466-1.470	1.465-1.467	1.468
ASTM D2270	Viscosity Index	224	211	200
ASTM D1500	Color	0.5	0.5	0.5

ERGON ECOPRENE PROCESS OILS

Providing a renewable oil that more closely mirrors incumbent petroleum process oil properties for easier incorporation into customers' raw material solutions. Ergon's EcoPrene Process Oils are Naphthenic-based oils with renewable content that provides an incremental move to renewable goals while requiring fewer formulation changes.

TEST DESCRIPTION	TEST METHOD	EcoPrene 102	EcoPrene 105	EcoPrene 1200	EcoPrene 2000
PHYSICAL PROPERTIES					
Viscosity, SUS at 100°F (37.8°C)	ASTM D2161	118	126	1259	1941
Viscosity, SUS at 210°F (98.9°C)	ASTM D2161	40.9	44.1	85.9	133.0
Viscosity, cSt at 40°C (104°F)	ASTM D445	22.7	24.7	234	364
Viscosity, cSt at 100°C (212°F)	ASTM D445	4.4	5.4	16.4	27.0
API Gravity, 60°F (15.6°C)	ASTM D1250	24.1	23.2	21.7	23.2
Specific Gravity, 60°F (15.6°C)	ASTM D4052	0.9094	0.9146	0.9236	0.9146
Viscosity-Gravity Constant	ASTM D2501	0.871	0.876	0.856	0.836
Density, lbs/gal at 60°F	ASTM D1250	7.578	7.617	7.697	7.617
Density at 15.6°C, g/cm ³	ASTM D1250	0.9086	0.913	0.9228	0.9137
Molecular Weight	ASTM D2502	339	380	494	653
Flash Point, COC, °F (°C)	ASTM D92	372 (189)	397 (203)	530 (277)	587 (308)
Flash Point, PMCC, °F (°C)	ASTM D93	320 (160)	333 (167)	459 (237)	504 (262)
Color, ASTM	ASTM D6045	L0.5	L0.5	L2.0	2.4
Pour Point, °F (°C)	ASTM D5949	-67 (-55)	-54 (-48)	5 (-15)	21 (-6)
Water Content	ASTM D7546M	PASS	PASS	PASS	PASS
Glass Transition Temperature (Tg), °C		-59.1	-50.6	-61.3	-63.3
Appearance	ASTM D4176M	PASS	PASS	PASS	PASS
CHEMICAL PROPERTIES					
Acid Number, mg KOH/g	ASTM D664	0.01	0.02	0.01	0.01
Aniline Point, °F (°C)	ASTM D611	146.5 (64)	103.8 (40)	191.2 (88)	221 (105)
Sulfur, ppm	ASTM D4294	313	395	588	496
Refractive Index, 20°C (68°F)	ASTM D1218	1.4899	1.4841	1.5036	1.4959
UV Absorptivity at 260 nm	ASTM D2008	0.77	0.61	3.35	2.32
HEALTH AND SAFETY PROPERTIES					
Polycyclic Aromatic Compounds, wt%	IP 346	<3	<3	<3	<3
Modified Ames Assay, MI	ASTM E1687	<1	<1	<1	<1

BENEFITS TO YOUR APPLICATION'S NEEDS:

- Bringing companies closer to ESG and renewable goals
- Renewable oil that closely mirrors and potentially meets existing raw material specifications
- Providing varying degrees of performance improvements in solvency, volatility, and polarity

With EcoPrene oils, Ergon's customers can more easily increase the overall renewable content of their products at lower costs.



Headquartered in Flowood, Mississippi, with international operations based out of Belgium, Ergon and its subsidiaries comprise a strategic collection of petroleum-related enterprises founded in 1954 by Leslie B. Lampton. Today, Ergon operates as a sophisticated crude oil processor, transporter and marketer of refined products. Employing over 3,000 people, Ergon maintains a network of strategically located terminals, allowing for efficient distribution worldwide.



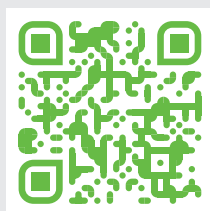
Ergon markets products in more than 90 countries and remains committed to increasing our global presence through strong relationships and continued investments across all regions.

GLOBAL DISTRIBUTION

We know you need our products to keep your business running. And we are doing everything within our power to get them to you when you need them, just as we have done for the past 68 years.

For more specific chemistry solutions, please ask us about our Modified Vegetable Oils – providing chemistry solutions for your specific performance challenges.

Thankfully, Ergon's unique logistics network — with sister companies handling everything from crude gathering to refining, terminaling, shipping and trucking — means we are better equipped than most companies to meet your needs. And our Customer Service Team leads the industry.



Please contact us with any questions – technical or commercial.

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