FUNCTIONAL PRODUCTS INC.

Innovative Chemistry for Lubricants

Tackifier Additives

8282 Bavaria Road, Macedonia, Ohio, USA 44056 • 1-330-963-3060 • January 2026

Industrial Lubricant Tackifiers

Tackifiers vary by the molecular weight of the active polymer, the concentration and viscosity, and by diluent oil. **FUNCTIONAL V-176** is an excellent start to any formulating project.

Product	Base Oil	Chemistry	Viscosity, 100°C	Color	Shear	String Length
V-176	Group II, Paraffinic	PIB	2900	Light Yellow	Good	46
V-178	Group II, Paraffinic	PIB	4000	Light Yellow	Good	58
V-172	Group II, Paraffinic	PIB	4000	Light Yellow	Better	20
V-175	Group II, Paraffinic	PIB	5900	Light Yellow	Fair	80
V-177	Group II, Paraffinic	PIB	10500	Light Yellow	Good	62
V-198B	Group I, Paraffinic	PIB	4500	Orange	Good	37
V-178N	Naphthenic	PIB	4000	Amber	Good	40
V-188	Group II, Paraffinic	OCP	4000	Light Yellow	Best	16
V-298	Tech. White Oil	PIB	4000	Colorless	Good	53

Functional Products Inc. can customize your selection to specific performance, economics, and even different handling viscosities to suit the pumping and mixing capabilities of your blending site:

Diluent Oil – FPI uses paraffinic oil (Group I, II, III), PAO (Group IV), white oils, naphthenic oils, vegetable oils, synthetic esters, silicone oil, and water to provide application-specific additives as requested.
Chemistry – Different active polymers have unique advantages that best complement an application.
- ***PIB*** – polyisobutylene: best tackiness and lower handling viscosities
- ***OCP*** – olefin copolymer: best thermal and mechanical stability
- ***Proprietary*** – a unique polymer chemistry developed by FPI

Viscosity – Products are available in lower viscosity cuts for more convenient handling or high viscosity cuts for better economics.
Color – Typical color of the product. Product color range is specified by ASTM D1500.
Shear – Shear stability. Relative measure of how well the tackiness persists in severe duty use: Best > Better > Good > Fair > Poor
String Length – Measured at 0.5wt% in 300N Group II oil; measure of tackiness with ductless siphon test method.

PARATAC® and PARATAC XT®

Product	Base Oil	Chemistry	Viscosity, 100°C	Color	Shear Stability	String Length
PARATAC	Paraffinic	PIB	2950	Light Yellow	Better	23
PARATAC XT	Paraffinic	PIB	750	Light Yellow	Good	41

Functional Products Inc. is proud to offer legacy tackifiers **PARATAC** and **PARATAC XT** for all applications. Both options are high quality tackifiers with longstanding approvals in industrial and automotive applications.

PARATAC offers improved shear stability in longer life or more severe operations. **PARATAC XT** is recommended as an easy to handle and low viscosity option for facilities with limited heating or pumping capabilities.

Synthetic-Based Tackifiers

For High-Performance Oils and High Temperature

Prior work has found that additives based in Group I or II conventional oil can carry over sufficient impurities to full synthetic base oils to affect oxidative or color stability. The V-300 Series is formulated in synthetic Group III base oil which adds greater oxidation stability over the colorless V-200 or V-400 products. "P2" products like **FUNCTIONAL V-188P2** are a variant of an original petroleum tackifier using low viscosity PAO.

Product	Base Fluid	Chemistry	Viscosity, 100°C	Color	Shear	String Length
V-378	Group III	PIB	6250	Colorless	Good	44
V-388	Group III	OCP	4000	Colorless	Best	22
V-188P2	PAO	OCP	9200	Colorless	Best	20

Anti-misting Agents

Anti-misting agents are similar to tackifiers but provide mist suppression without contributing tackiness to the lubricant. Anti-mist additives **FUNCTIONAL MW-612** and **V-162** greatly reduce the formation of mist and are especially in equipment that lacks mist-collecting systems. **FUNCTIONAL V-421** is available as an NSF HX-1 incidental food contact version of **FUNCTIONAL V-162**.

Product	Base Oil	Chemistry	Viscosity, 40°C	Color	Shear	Application
V-162	Paraffinic	PIB	850	Light Yellow	Excellent	Industrial oils
V-421	H1 White Oil	PIB	3000	Colorless	Excellent	Food grade, NSF HX-1
MW-612	Water/Oil	Proprietary	10	Colorless	Excellent	For emulsions

Biobased or Biodegradable Tackifiers

For "Eco-Friendly" and Environmentally Acceptable Lubricants (EAL)

Natural oils, synthetic esters, and other biodegradable or 'environmentally acceptable lubricants' require unique tackifiers. Functional Products Inc. features a number of additives on the European Ecolabel Lubricant Substance Classification (LuSC) list. See the **Biobased Additives** brochure.

Product	Base Fluid	Chemistry	Viscosity, 100°C	Color	Shear	Ecolabel?
V-188P2	PAO	OCP	9250	Colorless	Best	Yes
V-515	Triglyceride	Proprietary	8000	Yellow	Good	Yes
V-584	Triglyceride	Proprietary	1250, 40°C	Amber	Fair	Yes

Tackifiers for Grease

Highly concentrated **FUNCTIONAL V-177** is recommended for easily adding tack and clinginess to grease. If severe loss of tackiness occurs during grease milling then use **FUNCTIONAL V-188**. For further benefits like oil bleed reduction and water resistance, more specialized 'grease polymers' like **FUNCTIONAL V-191** or **FUNCTIONAL V-207** are recommended. See the **Grease Additive** brochure.

NSF HX-1 Tackifiers

For Food Machinery Lubricants and Greases

Food machinery lubricants rated require rigorous compliance to NSF standards. V-400 Series products are formulated in either white oil or PAO. V-500 Series products are formulated in NSF registered vegetable oils or esters, and may also be European Ecolabel registered. See the **Food Machinery Additive** brochure.

Product	Base Oil	Chemistry	Viscosity, 100°C	Color	Shear	String Length	HX-1?
V-422	White Oil	PIB	3000	Colorless	Good	70	Yes
V-425	White Oil	OCP	3000	Colorless	Best	15	Yes
V-475	White Oil	PIB	1650	Colorless	Fair	82	Yes
V-188P2	PAO	OCP	9200	Colorless	Best	20	Yes
V-584	Veg Oil	Proprietary	1250, 40°C	Amber	Fair	5	Yes

Water-Based Tackifiers

FUNCTIONAL V-802 is an environmentally friendly liquid additive that thickens and confers tack to water or emulsions of water and soluble oils. Other applications include: flocculating agents, home care/cleaning, and ceramic applications, including as a binder for powders and an anti-sag agent in paints.

Product	Base Fluid	Chemistry	Color	pH	NSF HX-1
V-802	Mixture	Proprietary	White	Neutral	Yes

Silicone Tackifier and Anti-Mist

FUNCTIONAL V-870 is a tackifier for lubricants based in silicone or silicone/petroleum blends. **FUNCTIONAL V-870** is an effective anti-mist agent in low viscosity silicone sprays or lubricants to prevent unwanted aerosol formation.

Product	Base Fluid	Chemistry	Viscosity, 100°C	Color	Shear
V-870	Proprietary	Proprietary	8500	Colorless	Good

Not finding exactly what you need?
We can help you navigate your options –
sales@functionalproducts.com