

FUNCTIONAL V-290 0 SSI VISCOSITY MODIFIER PELLETT

APPLICATION:

FUNCTIONAL V-290 is an olefin copolymer thickener in concentrated pellet form with exceptional shear stability. The pellet form is a convenient alternative to low SSI bales or liquid polybutene and OCP concentrates. **FUNCTIONAL V-290** is resistant to agglomeration.

FUNCTIONAL V-290 has minimal effect on low temperature fluidity and pour point but will not improve VI. Combine with **FUNCTIONAL MG-1000** or **MG-3000** or use a high VI base fluid to meet "high VI" (140+) specifications when needed.

COMPOSITION:

FUNCTIONAL V-290 is a proprietary olefin copolymer.

Typical Properties	
Appearance	Off-White to Light Yellow Pellet
Specific Gravity	0.99
Shear Stability Index (PSSI), ASTM D6278, 30 cycles *	0 SSI
Sonic Shear Stability, ASTM D5621, 40 min *	0.3%
20hr KRL Shear Stability, CEC L-45-A-99 *	2.1%

* 25wt% in Gr. II ISO 22 (KV40=101.3cSt, KV100=11.0cSt)

TREATMENT LEVEL:

Treatment levels of 10 – 50% are typical in industrial lubricants and greases.

Kinematic viscosities and VI at 30wt% in common low viscosity base fluids:

	150SN Gr. I	120N Gr. II	4 cSt Gr. III	6 cSt PAO	2 cSt PAO	Veg Oil – Canola	65SUS Naph.	ISO 32 OS PAG
KV40, cSt	244.6	150	111.3	179	26.1	175.3	76.6	197.2
KV100, cSt	18.3	14.6	12.8	17.5	5.1	21.5	8.8	19.4
VI	80	95	108	106	128	146	84	112

HANDLING:

Dissolving is best accomplished with continuous agitation at temperatures of 194-230°F (90-110°C). Higher temperatures will not affect **FUNCTIONAL V-290** but may darken the diluent oil.

FUNCTIONAL V-290 should be stored below about 120°F (50°C), as higher temperatures may cause agglomeration due to cold flow of particles. It is a non-hazardous material; see the current Safety Data Sheet.

This Technical Data Sheet and the Safety Data Sheet contain information believed to be accurate and reliable. No warranty is made, however, to information beyond the control of FUNCTIONAL PRODUCTS INC. The engineering and management personnel of the user are responsible for determining the suitability of this or any product for any specific application, and this information is offered to them for that purpose.

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FUNCTIONAL PRODUCTS INC.

Innovative Chemistry for Lubricants

Technical Data Sheet

Functional V-290 Treat Levels in Gr. II ISO 22 for Industrial Gear/HF and Automotive:

wt% V-290	5%	10%	20%	25%	30%	35%	40%	45%	50%
KV40, cSt	27.9	36.5	68.7	101	152	245	420	768	1510
KV100, cSt	5.2	6.2	9.0	11.0	14.6	19.1	25.6	35.1	49.3

FUNCTIONAL V-290 is compatible in PAO formulations for HEPR-type fluids as well as vegetable oil triglycerides (HETG), synthetic esters (HEES) – adipates, TMP, high viscosity complex ester – and oil-soluble PAG (HEPG).

Treat Level in Vegetable Oil (Canola) for Industrial Gear and HF:

ISO VG	46	68	100	150	220	320	460	680	1000
wt%	6	15	22	28	33	37	40.5	44	47.5
VI	200	185	169	153	138	127	116	106	97

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