

FUNCTIONAL V-4630

FULL SYNTHETIC BRANCHED STAR-LIKE STYRENE VISCOSITY MODIFIER (1-2 SSI)

APPLICATION:

FUNCTIONAL V-4630 is an easily handled preparation of shear stable styrene copolymer.

The multi-armed “star”-like polymer structure provides enhanced resistance to temporary shear thinning to yield higher HTHS viscosity, higher film thickness, and reduced wear in use. The highly branched structure also resists severe shearing damage on extended shear testing for HDDEO and tractor hydraulic fluids (including 90 and 250 cycle Kurt-Orbahn ASTM D6278; and 20 hour KRL tapered roller bearing test) compared to linear diblock copolymer like **FUNCTIONAL V-4300 Series**.

COMPOSITION:

FUNCTIONAL V-4630 is a branched styrene-based copolymer based in Group III oil.

| Typical Properties | |
|---|------------------------------------|
| Appearance (Visual) | Slight Yellow to Yellow |
| Color (ASTM D1500) | ≤ 2.0 |
| Flashpoint, Open Cup (ASTM D92) | >200°C / 392°F |
| Typical Kinematic Viscosity (ASTM D445) | 75 cSt at 100°C 220 cSt at 40°C |
| Pounds per Gallon | 7.10 |
| Thickening Efficiency, 10wt% in Group III 4 cSt | 6.24 cSt @ 100°C |
| Shear Stability Index, ASTM D6278, 30 cycle | 1 - 2 SSI |

TREATMENT LEVEL:

Treatment levels of 15% to 30% are recommended depending on SAE J300 crankcase viscosity grade.

| Base Oil | SAE 8 | SAE 12 | SAE 16 | SAE 20 | SAE 30 | SAE 40 | SAE 50 |
|-----------------|--------|--------|---------|---------|---------|---------|---------|
| Group III 4 cSt | 3.3wt% | 9.0wt% | 14.4wt% | 18.5wt% | 28.5wt% | 38.2wt% | 48.3wt% |

Confirm product meets HTHS, cold-crank, and MRV TP-1 requirements for your desired multigrade (0W-X, 5W-X, etc.) depending on your base oil, additive package, and pour point depressant.

HANDLING:

Storage at room temperature is recommended. **FUNCTIONAL V-4630** can be heated (up to approximately 90°C or 200°F) to facilitate handling. **FUNCTIONAL V-4630** 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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