



CERTIFICATE OF ANALYSIS

To: VGP Holdings LLC
Address: 3901 River Road
Cincinnati, OH 45204
US
Plant: HOUS
Fax To:
Product: HITEC® 11188 Bulk
PO #: 4522588439
Order #: 0001407279
Expires: January 1, 2028

Material Number: 031335
Lot #: 0125HO002
Scheduled Ship Date: January 27, 2025
Shipped Via: UP
Shipped From: HOUS
Container Number: GATX 210088
Manufacturing Date: JANUARY, 2025

HITEC® 11188 Bulk

Sales Specification Characteristics

Inspection	Note	Units	Methods	Min	Limits Target	Max	Actual
Boron		%M	D4951	0.18	0.23	0.28	0.22
Calcium		%M	D4951	1.13	1.22	1.31	1.24
Magnesium		%M	D4951	0.63	0.70	0.77	0.75
Molybdenum		ppm	D4951	817	988	1158	1024
Nitrogen		%M	D5291 Mod	0.94	1.07	1.20	1.05
Phosphorus		%M	D4951	0.83	0.86	0.93	0.85
Zinc		%M	D4951	0.87	0.95	1.03	0.94
Flash Point, PMCC		°C	D93	135	-	-	>135
Specific Gravity @ 15.6°C		-	D4052	0.955	0.970	0.985	0.957
Kinematic Viscosity @ 100°C		cSt	D445	45	56	67	55

Sales Notes

Additional Product Information

Handling Temperature:

Recommended storage and handling temperature: 40-45°C
Maximum storage temperature: 50°C
Maximum handling temperature (< 5 days): 70°C
Maximum skin temperature (agitated): 121°C
Shelf life @ 10-40°C: 36 months
Shelf life @ 45-50°C: 3 months
Typical Viscosity @ 40°C: 784 cSt
Typical TBN: 89 mg KOH/gr
Delta Gravity = 0.00064/°C

Comments: BL# 200879923
Certification Date: 01/27/2025
Certified by: Dustie Barnes

Questions about this shipment should be directed to Afton Chemical Corporation- Quality Control Lab: 1-800-224-3724
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B 0.2302
Ca 1.2639
Mg 0.7007
MO 0.1015
P 0.8470
Zn 0.9323