

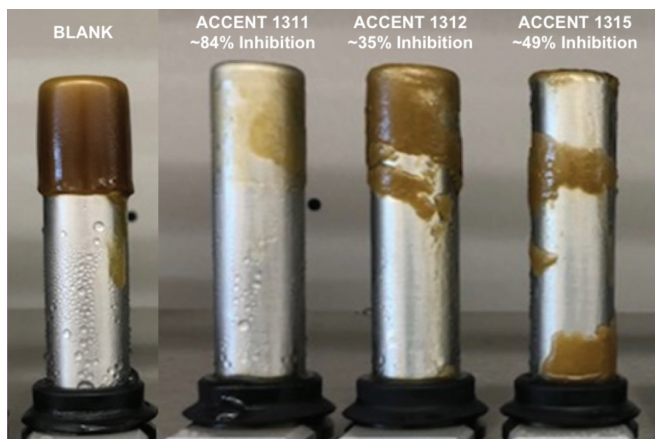
ACCENT™ Wax Inhibitors

Aqueous-based paraffin control for oil and gas production

High actives. Low viscosity. Environmentally friendly.

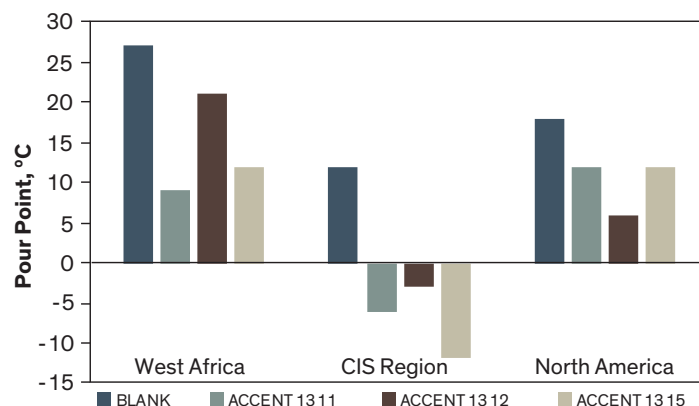
ACCENT™ Wax Inhibitors are high active, ethylene vinyl acetate, aqueous-based dispersions designed to control wax deposition in pipelines, increase production output and reduce frequency of workover operations. Under certain conditions, these products effectively prevent paraffin deposition on pipeline walls by modifying the shape and size of wax crystals. They have proven effective in a variety of crude oils by preventing wax agglomeration and keeping paraffins with bulk phase in flowable condition.

Performance of ACCENT™ Wax Inhibitors and pour point depressants (PPDs)



An industry standard, cold finger testing was conducted on North American crude oil based on these parameters:
 Dosage: 125 ppm (based on active), oil temp: 40 °C; cold finger temperature: 10 °C, sub cooling: 30 °C; test duration: 18 hours.

PPD performance



PPD testing was conducted based on the ASTM D97 method. Optimum product, digestion temperature and dosage vary based on the crude oil and application. **PPDs of up to 30 °C were observed.**

Higher actives deliver effective performance with lower dosage

Most conventional wax inhibitor chemistries have limited solubility in organic solvents, thereby leading to extremely low active concentrations in treatment formulation that require high dosage rates. With ACCENT™ Wax Inhibitors, oil and gas service companies can achieve effective inhibition and PPD at lower dosage rates compared with solvent-based formulations.

PPD test

ACCENT™ Wax Inhibitors were evaluated on paraffinic crude oils supplied by service companies from various geographic regions.

Product features and benefits

- **Effective inhibition** in waxy crude systems, compared to solvent-based systems
- **Excellent PPD** which can help improve the viscosity of crude oil
- High actives concentration **enables savings in logistics and storage**, with up to 300% less volume
- Environmentally friendly, sustainable water-based chemistry **improves handling safety** – no flammable solvents
- Excellent thermal stability and material compatibility
- Proven **ELVAX® Chemistry**

Save on logistics and application costs

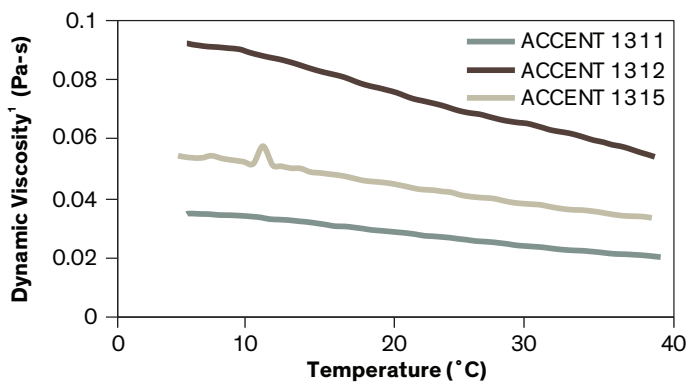
By using a lower dosage, ACCENT™ Wax Inhibitors help reduce the costs associated with their transportation and application in the oilfield while also addressing storage and logistical challenges at locations like offshore rigs. These products also have lower viscosity compared to their traditional solvent-based counterparts, giving you better pumpability and reducing the dilution and energy costs required to successfully pump and inject treatments on the field. ACCENT™ Wax Inhibitors are opaque white liquids in appearance.

Typical oilfield applications

ACCENT™ Wax Inhibitors are olefin co-polymeric dispersions, available in multiple formulations to fit a wide range of upstream and midstream pipeline operations. Application areas include:

- Crude oil transport lines to prevent paraffin build-up
- Reduced pour point and lower viscosity of crude oil during transportation
- Wellhead to control wax formation in flow lines
- Downhole application (such as cap string) to avoid significant downtime associated with remediation

Viscosity of ACCENT™ Wax Inhibitors versus traditional solvent EVA wax inhibitors



¹Measured on an ARES rheometer at a shear rate of 10 s⁻¹.

Typical properties of ACCENT™ Wax Inhibitors

PRODUCTS	DESCRIPTION	ACTIVITY %	POUR POINT (°C)
ACCENT™ 1311	EVA dispersion	50	0
ACCENT™ 1312	EVA dispersion	40	0
ACCENT™ 1315	EVA dispersion	40	0

Extracting greater value through ACCENT™ chemistry solutions

Dow is your total chemical partner for all your flow assurance needs. From proactive, preventive applications to remedial steps designed to restore operations to their optimal levels if and when buildup does occur, Dow offers innovative chemistries and technologies to improve flow and bring more oil to the surface. Our sustainable solutions address both organic and inorganic flow assurance challenges. Included in our portfolio are:

- **Polymeric and traceable scale inhibitors**
- **Chelants and scale removers**
- **Wax inhibitors and PPDs**
- **Wax dispersants**

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