# DEXCARE™ CD-1 Polymer

## Boost your shampoo's conditioning effectiveness with Dow's renewable, bio-derived deposition aid

A natural formulation to enhance natural beauty. Easily processed cold or hot, this highly effective, biodegradable deposition aid offers unique performance conditioning benefits for shampoos. Used in combination with benefit agents such as silicones or natural oils, DEXCARE™ CD-1 Polymer allows for increased versatility and improves the natural content of formulations. Always focusing on implementing and protecting natural elements, dextran is made from fermented sucrose and is non-GMO, vegan, REACH compliant and made without animal testing. A natural solution to complement haircare and body wash products.

| Product Overview | |
|---|---|
| **Property** | **Result** |
| Bio-based carbon content (%) | 81 |
| Origin | Fermented, cane sugar |
| Biodegradability | Inherent, ultimate* |
| China regulatory status | Listed in the IECIC. Not listed in the IECSC‡. |
| Product form | 30% active in water |
| Viscosity (cP) | <2000 |
| Solubility in water | Soluble |
| pH and pH stability | 6 and between 3-11 |
| Recommended use level (%) | 0.2-0.5 |
| Temperature | Can be processed cold or hot, up to 80° C |
| % Nitrogen | 1.30-1.90 |
| Shelf life | 1 year |
| Preservative | Phenoxyethanol |
| Recommended applications | Rinse-off: shampoo and body wash |

*By an inherent biodegradation test conforming to OECD 302B guidelines (Zahn-Wellens) using acclimated sludge.
IECIC: Inventory of Existing Cosmetic Ingredients in China
IECSC: Inventory of Existing Chemical Substances in China
‡New chemical notification has been approved by authority. All activities of this product shall comply with China new chemical regulation.

### Consumer benefits

**For shampoos**

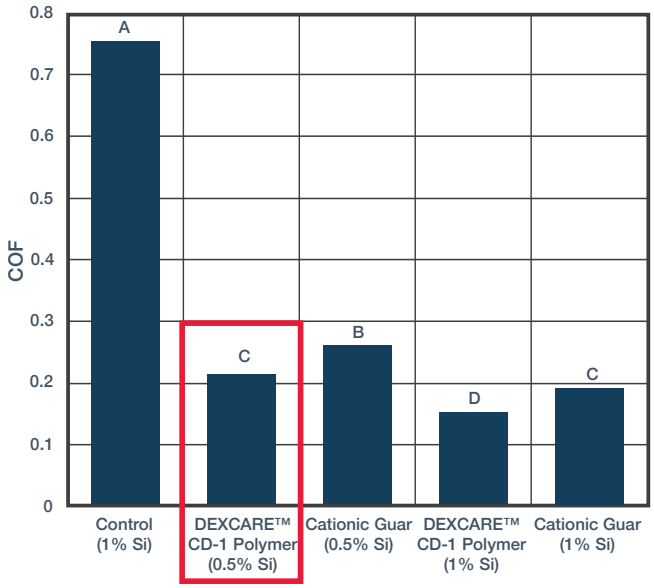
- Enhanced dry combing with silicones
- Enhanced wet combing with silicones and natural oils
- Reduction in friction with silicones
- No silicone build-up on hair
- Improved sensory benefits with silicones

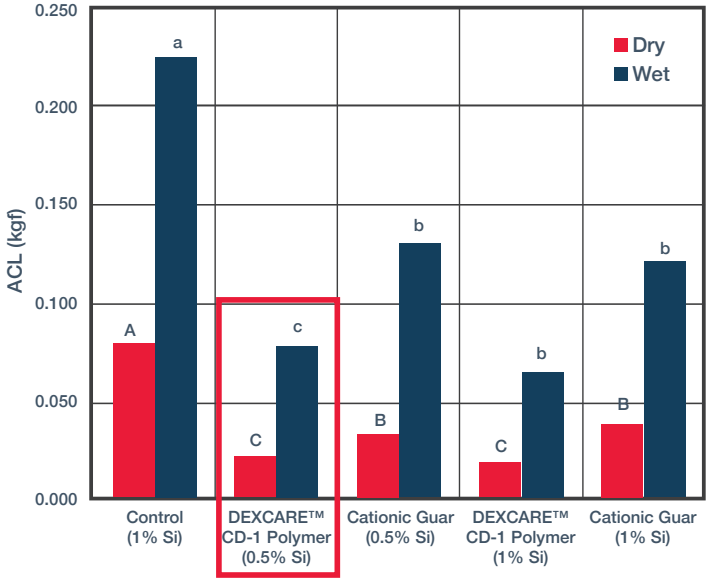
### Formulator benefits

- Delivered in water
- Ease of processing
- Processed cold or hot
- Improves natural content in formula
- Biodegradable
- Highly effective deposition aid
- Compatibility with a wide range of surfactants, thickeners, silicones and natural oils
- Allows versatility in formulation chassis

# Reduced friction and enhanced combability

Comparison with Cationic Guar at two silicone use levels



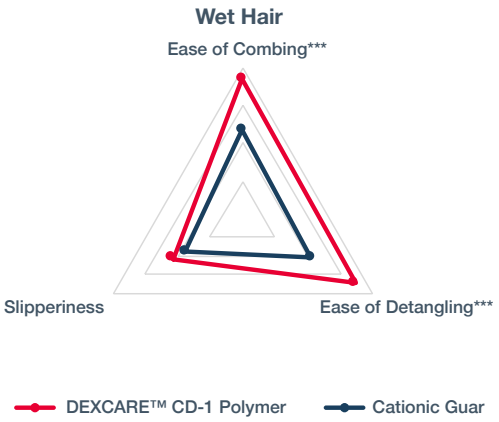

Statistics: Different letters show a statistical difference at 95% confidence.

DEXCARE™ CD-1 Polymer provides similar friction and enhanced combing using **half the silicone level** as cationic guar.

# Sensory panel studies

DEXCARE™ CD-1 Polymer provides better ease of combing and ease of detangling on wet hair with **half the silicone level** compared to Cationic Guar.

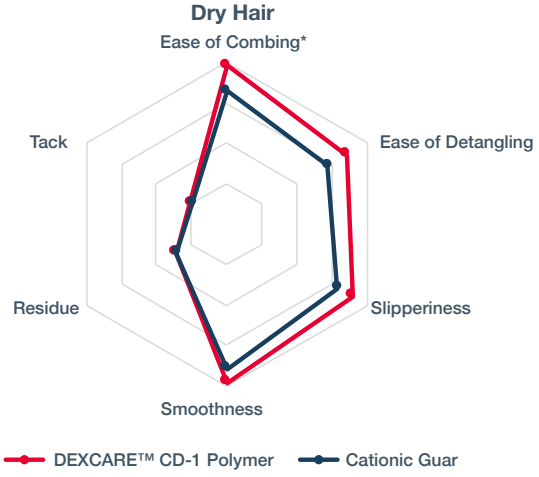
DEXCARE™ CD-1 Polymer provides better ease of combing on dry hair with **half the silicone level** as Cationic Guar.




**Treatment:** 0.4 g / g hair virgin brown hair

- 0.3% active DEXCARE™ CD-1 Polymer with 0.5% silicone active
- 0.3% Cationic Guar with 1% silicone active

**Sensory Panel #**
Participants: 18




**Wet Hair Statistics:**

- Ease of detangling and ease of combing: attributes between treatments were statistically different with *** ≥99.9% confidence
- Slipperiness: no statistical differences between treatments

**Dry Hair Statistics:**

- Ease of detangling and ease of combing: attributes between treatments were statistically different with *** ≥95% confidence
- Remaining attributes had no statistical differences between treatments

## Learn more

For more information about DEXCARE™ CD-1 Polymer, such as prototype formulations, please contact your customer service representative or visit **dow.com/virtual/beautyexperience**.

Images: 66823284438



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