

Oligomers for LED-Curable Nail Gel Coatings



Formulate nail gel coatings that look salon-fresh longer

Overcome common nail coating issues like low gloss, color drift, regulatory compliance issues, premature chipping, and high heat generation during cure by formulating your nail gel coatings with a Bomar® oligomer. Coatings formulated with Bomar oligomers have a non-yellowing, high-gloss finish for vibrant coatings, and exhibit excellent durability for a longer lasting salon-fresh look. They generate minimal heat during LED cure, are easily removed with acetone, and are created with low MeHQ levels for insignificant skin irritation. Our oligomers for nail gel coatings are INCI registered and meet many global regulatory conditions.

Bomar oligomers are ideally suited for top coat, color coat, or base coat LED-curable nail gel polishes sold in professional salons or do-it-at-home kits. They cover a diverse range of mechanical properties allowing complete formulation flexibility, enabling formulators to get the desired coating properties.

If one of our existing oligomers do not provide the desired properties for your application, Bomar can work with you to develop a custom oligomer. We also offer contract manufacturing services for companies that would like to outsource synthesis.

- Low heat generation to eliminate skin irritation during cure
- Diverse mechanical properties for formulation flexibility
- Non-yellowing, high-gloss finish for vibrant coatings
- Easy removal with acetone
- Excellent durability for nails that stay salon fresh longer
- INCI registered oligomers

AVAILABLE PRODUCTS

Bomar recommends BR-952, BR-541S, BRC-443D, BR-742M, BR-744BT, and XR-741MS for LED-curing nail gel coating applications. The table below lists properties that formulators may want to control during nail coating formulation. For more information on these products, please visit our website.



Product	Viscosity (cP) ASTM D4287	Durometer Hardness (D) ASTM D2240	Gloss ASTM D2457	Yellowness (b*) ASTM E1164	Rolling Ball Tackiness Tester (cm) ASTM D3121	Glass Transition Temperature (°C) ASTM E831	Maximum Temp. Evolved During LED-Curing (°C)	200Acetone Double Rub Resistance ASTM D4572
BR-541S	7,100	D65	78	0.005	85	44	45	80
BR-742M	58,000	D77	83	0.26	48	65	36	50
BR-744BT	75,000	D51	67	0.33	10	-18	36	20
BR-952	1,100	D78	85	0.2	44	159	52	200
BRC-443D	49,000	D64	76	0.26	45	41	40	50
XR-741MS	92,000	D86	74	0.04	100	110	39	200
BRC-843D	13,000	D60	83	0.14	82	45	42	57

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