



## Zemea® Liquid Foundation With Vanatural® XGB

Phase	Trade/Drug Name	INCI Name	Supplier	Wt.%
	Water			77.97
A	Vanatural® XGB Bentonite Clay	Bentonite and Xanthan Gum	R.T. Vanderbilt Company, Inc.	4.00
	Zemea® Propanediol	Propanediol	DuPont Tate & Lyle	5.00
	Iron Oxides and Microcrystalline Cellulose	C2-5 Yellow LLXLO		0.40
	Iron Oxide (C.I. 77491) and Cellulose	C2-5 Red R-516L		0.10
B	Iron Oxide (C.I. 77499) and Cellulose	C2-5 Black BL-100	Kobo Products	0.03
	Titanium Dioxide and Cellulose and Alumina	C2-5 TiO2 CR-50		3.50
	Mica and Cellulose	C2-5 Sericite FSE		4.00
C	Xylance™	Cetearyl Wheat Straw Glycosides and Cetearyl Alcohol	Actives International	5.00
D	Preservative			q.s

### Manufacturing Process

1. While heating the water to 75°C, slowly add the VANATURAL® XGB to the water agitated at maximum available shear.
2. Mix until it is fully hydrated and add the Zemea® propanediol.
3. Combine the Part B ingredients, then add to Part A and mix until smooth.
4. Maintain the water phase at 75°C.
5. Heat Part C oil phase to 75°C.
6. Add the oil phase to the water phase with good agitation; mix until uniform.
7. Avoid incorporating air.
8. Cool with mixing; add Part D when the emulsion is <30°C.

Formulation prototype provided by: R.T. Vanderbilt Company, Norfolk, CT, USA

### For additional information or samples:

#### DuPont Tate & Lyle Bio Products Customer Service

198 Blair Bend Drive  
Loudon, TN 37774

Tel: +1-866-404-7933

[www.duponttateandlyle.com](http://www.duponttateandlyle.com)



Copyright © 2016 DuPont Tate & Lyle Bio Products Company, LLC. Zemea® is a registered trademark of DuPont Tate & Lyle Bio Products Company, LLC, for its brand of bio-based propanediol. All rights reserved.

This technical product information is presented in good faith and is believed to be accurate and reliable as of the date of publication. DuPont Tate & Lyle Bio Products makes no guarantee or warranty of any kind, expressed or implied, regarding the product or information contained herein. Purchaser assumes all risk and liability in acting on the information provided herein. It is the sole responsibility of the Purchaser to determine whether Zemea® propanediol is appropriate and suitable for the Purchaser's specific use and, as required, to obtain approval by appropriate regulatory authorities for such use. Statements concerning the use of Zemea® propanediol are not to be construed as recommendations, suggestions, or inducements to use it in the infringement of any patent or in violation of any applicable laws or regulations. DuPont Tate & Lyle Bio Products disclaims any liability for infringement of any patent by reason of customer's use of any products or information contained herein in combination with other materials or in any process. (12/2016)