



# Compounder

Vydyne® General-purpose PA66 and PA66/6  
Compounder Feedstock Resins



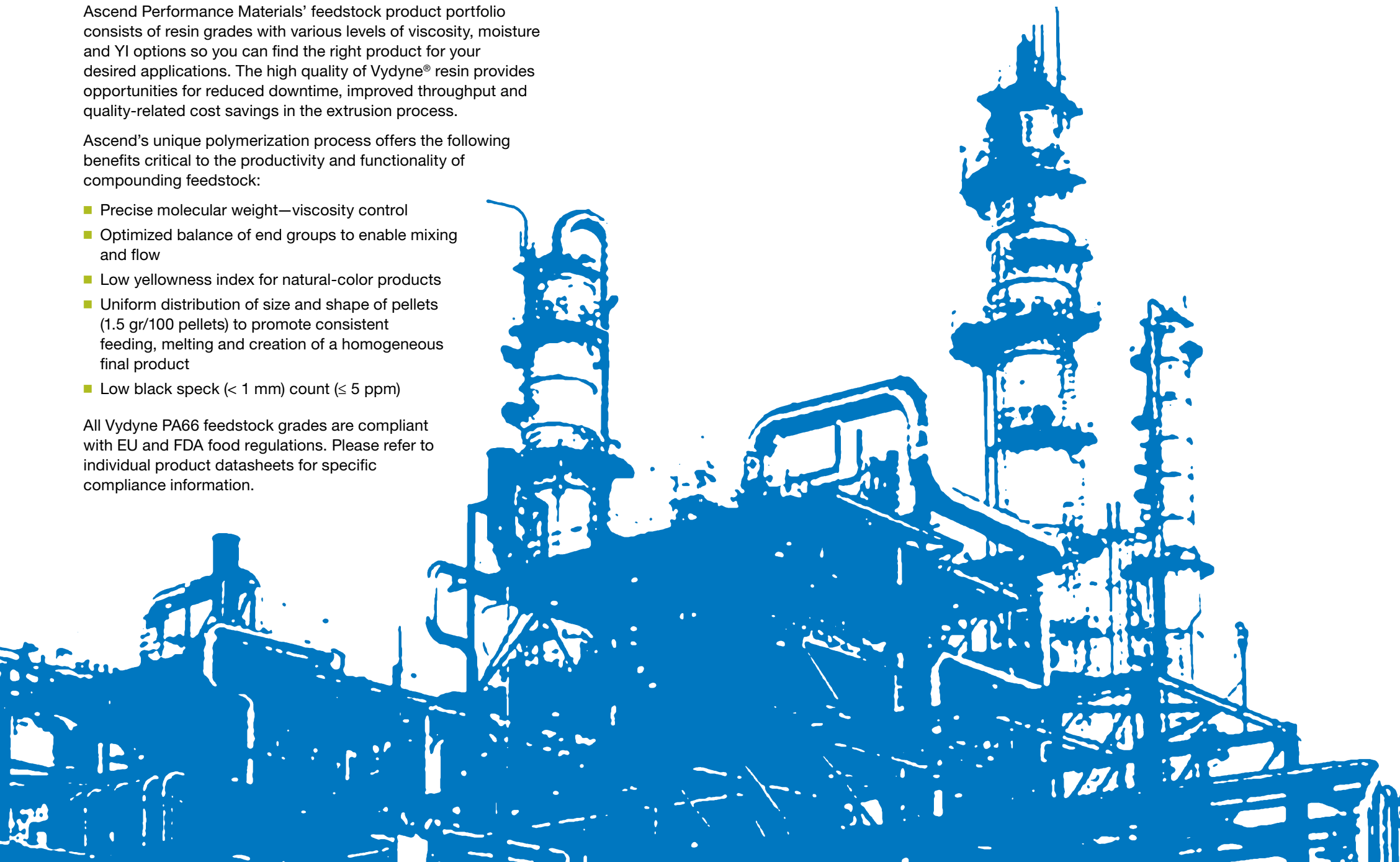
## Key Product Attributes

Ascend Performance Materials' feedstock product portfolio consists of resin grades with various levels of viscosity, moisture and YI options so you can find the right product for your desired applications. The high quality of Vydine® resin provides opportunities for reduced downtime, improved throughput and quality-related cost savings in the extrusion process.

Ascend's unique polymerization process offers the following benefits critical to the productivity and functionality of compounding feedstock:

- Precise molecular weight—viscosity control
- Optimized balance of end groups to enable mixing and flow
- Low yellowness index for natural-color products
- Uniform distribution of size and shape of pellets (1.5 gr/100 pellets) to promote consistent feeding, melting and creation of a homogeneous final product
- Low black speck (< 1 mm) count ( $\leq 5$  ppm)

All Vydine PA66 feedstock grades are compliant with EU and FDA food regulations. Please refer to individual product datasheets for specific compliance information.



Vydyne® Compounder Resins

Category ▶		Low-viscosity		Medium-viscosity					High-viscosity			Medium-viscosity Copolymers		
Product ▶		21ZLV	21LS NEW	21MST NEW	21Z	21Z-NT01A2 NEW	50BW	50BWFS	21FSR	63A	65B NEW	88X NEW	85XFS	86XFS
Characteristics ▶		Low moisture, reactive chemistries	High flow	Melt stability during extrusion	General purpose	High amine end groups	Low moisture, low YI	Good white color	General purpose	Low moisture, improved melt strength	Low moisture, improved melt strength	Good surface finish, low YI	Good surface finish, improved elongation	Lowest-temperature copolymer
Properties	Test Method													
RV (formic acid)	ASTM D789	34 to 37	34.5 to 37.5	41 to 45	44 to 48	45 to 49	45 to 51	45 to 51	48 to 54	75 to 90	117 to 145	45 to 51	44 to 50	45 to 51
Viscosity number (sulfuric acid)	ISO 307	112 to 119	113 to 120	129 to 137	135 to 143	137 to 145	137 to 148	137 to 148	143 to 153	183 to 200	223 to 242	137 to 148	135 to 146	137 to 148
Amine end groups (mmol/kg, min)	STM-00344*	50				78								
Specific gravity (gm/cm³)	ISO 1183	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Bulk density (kg/m³)	ASTM D1895	674	674	674	674	674	674	674	674	674	674	674	674	674
Yellowness index (max)	ASTM D1925	4	4	4	4	4	−4	−4	4	2	4	−4	4	4
Melting point (°C)	ISO 11357	260	260	260	260	260	260	260	260	260	260	255	245	235
Moisture (% max)	ASTM D6869	0.35	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.1	0.1	0.5	0.5	0.5

\*APM internal test protocol

Ascend’s Portfolio of PA66  
Compounding Feedstock Resins

Feedstock grades are formulated individually to obtain the optimal balance between the desired mixing level and integration of additives to PA66 backbone without sacrificing the flow characteristics and mechanical properties needed for the final application.

Lower-viscosity resins (21LS and 21ZLV) enable mixing shear-sensitive materials and high-percent filler concentration where distributive mixing is essential to the final product performance. The compounded product will maintain its high flow and performance needed for the application.

Medium- and high-viscosity grades (21MST, 21Z-NT01A2, 21Z, 50BW, 21FS-R and 52BW-MS) provide dispersive mixing without causing degradation of PA66. The new 21Z-NT01A2 grade is unique in its class with its high concentration of amine end groups, which is proven to be an advantage for moisture-sensitive formulations. Also, the new 21MST grade provides excellent melt viscosity stability against moisture throughout the extrusion process.

Ascend’s Portfolio of PA66/6  
Compounding Feedstock Resins

Ascend produces medium-viscosity PA66/6 random copolymers (88X, 85XFS and 86XFS) for compounds containing heat-sensitive additives and end-use applications that require good surface finish. These copolymer resins have melt temperatures varying from 235° to 255° C based on the comonomer concentration. These copolymers are specifically designed to be used with FR packages and high mineral loadings.



## North America

1010 Travis Street, Suite 900  
Houston, TX 77002 USA  
+1 713 315 5700

## Europe

Watson & Crick Hill Park  
11, rue Granbonpré - Bâtiment H  
B-1435 Mont-St-Guibert  
Belgium  
+32 10 60 8600

## Asia

Unit 3602, Raffles City  
No. 268, Xizang Road (M),  
Shanghai, China 200001  
+86 21 6340 3300

**inspiring** everyday™

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

© 2015 Ascend Performance Materials Operations LLC

The Ascend Performance Materials, Vidyne and Inspiring Everyday marks and logos are trademarks or registered trademarks of Ascend Performance Materials Operations LLC.

Revised July 2015