

NPE 2024 | **MADE
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The Plastics Show

Produced by  **PLASTICS**
INDUSTRY ASSOCIATION



Healthcare Industry Plastic Materials

Wednesday, May 8, 2024 • Panel Discussion

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Healthcare Industry Plastics Material Update

Chelsea Barriga
Senior Account Manager • Chase Plastics

Panel Discussion

01

Jason Merkle

Chase Plastics

Technical Manager

02

Eric Mueller

**Ascend Performance
Materials**

Business
Development
Manager

03

Benoit Verdickt

Syensqo

Sales Director
Americas- Life
Solutions

01 Chase Plastics Healthcare Trends



Chase Plastic Services, Inc., is a successful North American full-service thermoplastic resin distribution company headquartered in Clarkston, Michigan. We service large, medium and small size applications with major concentration on specialty and engineering thermoplastics.



Kevin Chase, CEO, and Carole Chase, Vice-President



Real service from real people

Outrageous Service: it's unheard of and rare in our industry – but it's what we pride ourselves on and it's the center of our Core Values. From real people answering the phone when you call to real engineers providing expertise on your floor when you're down, we're here to help you succeed. We're beholden to our Core Values that promote **high expectations, independence, teamwork, execution, and character.** Through these, you can expect accountability not only for our performance, but from the performance of our valued suppliers, so that you're receiving quality products when and where you need them, every time you place an order.

Redefining Resin Distribution

Real Flexibility

- ▶ Double- and triple-sourced materials
- ▶ Materials in stock, ready to be delivered
- ▶ Low minimum order size
- ▶ Blending and repacking services; custom labeling
- ▶ Core, general and custom stocking programs, including blanket orders, consignment, etc.
- ▶ Bilingual account managers, technical service, customer service, credit and logistics representatives

The industry's **broadest product line** featuring more than 35,000 specialty, engineering and commodity thermoplastics

Real Insight

- ▶ Corporate- and field-based technical service and technical development engineers
- ▶ Advanced inventory and supply chain management technology
- ▶ Technical service and technical development support in person and via phone, email or video
- ▶ Technically skilled sales professionals with engineering backgrounds
- ▶ Exclusive Chase the Knowledge webinars and blog
- ▶ ISO 9001:2015 Certified

Technical Insight through our dedicated Technical Engineering Team

Real Responsiveness

- ▶ Quickest written responses to quote requests in the industry
- ▶ 2-hour callback commitment
- ▶ Same-day shipping for in-stock materials
- ▶ Global supply and distribution network with 32 strategically located warehouses throughout North America
- ▶ Chase Plastics de Mexico with centralized warehouses in Querétaro, Monterrey and Juárez

An empowered sales team able to make pricing decisions without corporate approval

Real Dedication

- ▶ Privately owned and operated by the original 1992 founders, Kevin and Carole Chase
- ▶ Commitment to partnership through an in-depth understanding of our customers' evolving businesses, processes, and products
- ▶ A knowledgeable, dedicated account manager in your area
- ▶ Continuous evaluation and expansion of our supplier base and warehouse network
- ▶ Net Promoter Score = 95%
- ▶ Customer Satisfaction Rating = 97%

Dedicated account teams comprising sales, customer service, credit, engineering and supply chain management professionals – for each customer, from day one!



Chase Plastics Technical Development Support

Material selection

Choosing the best material for a new or existing application can be difficult. Our team specializes in finding the ideal product that fits the needs of the application and our customer.

Processing assistance

Whether over the phone, via video chat, or in person, we are prepared to help get your processes and materials running smoothly and efficiently. From prototype runs to troubleshooting, our engineers can provide insight on optimizing various thermoplastic processes.

Design review

With years of processing experience, the Chase technical team can offer critical advice on part and tool design to help ensure manufacturing ease and failure avoidance.

Parts and materials testing

By partnering with accredited labs all throughout North America, we are ready to tackle your mechanical, chemical, and physical testing needs.

Metal-to-plastic conversions

Increasing complexity and calls for lighter parts continue to push the boundaries of metal component replacements with plastic. Allow us to bring experience and a broad engineering thermoplastic portfolio to find a durable alternative to metal.

Educational training

The Chase technical team has the information, knowledge and willingness to educate our valued customers on products and processing for continuous improvement. These events can be customized around your team's needs at your facility, our headquarters, or an independent site.

Access to technical tools

Regulatory Approval Details - UL, Automotive, FDA, NSF, USP Class VI, REACH/RoHS/California Prop 65, Conflict Minerals

- ▶ Data Sheets and Processing Guides
- ▶ Safety Data Sheets (SDS)
- ▶ Product certifications
- ▶ Product brochures and chips/plaques

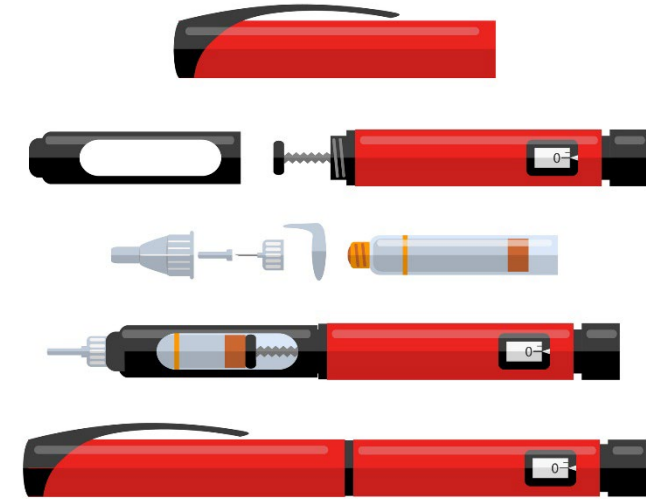
Chemical Resistance and Sterilization

- Post-COVID Era Disinfectant Utilization
 - More Chemicals and Higher Frequency of Cleaning
 - Sani-Cloth®, CeviWipes, Virex®, Isopropyl Alcohol, etc.
 - Environmental Stress Cracking (ESC) performance being measure to show suitability of various polymers
 - CTQ's of Interest: Aesthetic consistency, impact retention, FR needs, overall structural performance
- Variety of Sterilization Techniques
 - Steam Sterilization (Autoclave)
 - E-Beam
 - Gamma
 - Ethylene Oxide (EtO)
 - Time and temperature of exposure and timeliness of use after sterilizing will all be contributing factors to the polymer selected.



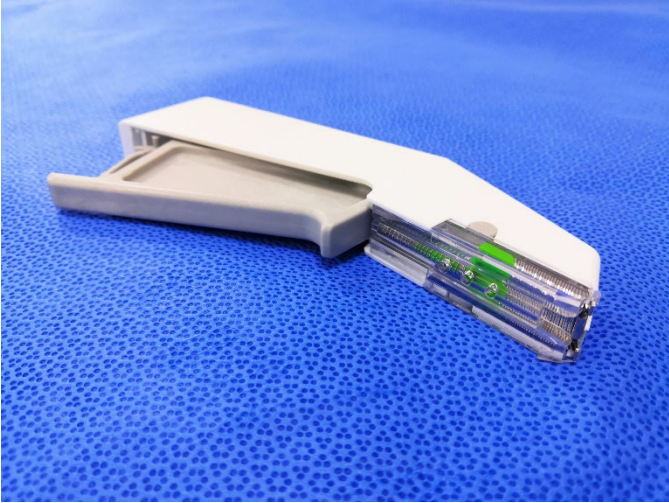
Drug Delivery and Diagnostic Opportunities

- Application Requirements:
 - Extremely Tight Tolerance control for consistent dosage
 - Lubricant needs for ease of patient use without strain
 - Bonding capabilities to assembly and sealing functionality
 - Colorability of certain components for branding purposes
 - Clarity in certain parts to see dosage levels
 - High degree of chemical resistance.
 - Compatibility with printing/stamping for decoration and labeling



Innovation Through Design

Thin Wall Molding
While Maintaining
Stiffness



Assembly
Consolidation in
Plastics vs Metals



Next Generation
Displays and
Monitoring





NPE 2024

Eric Mueller

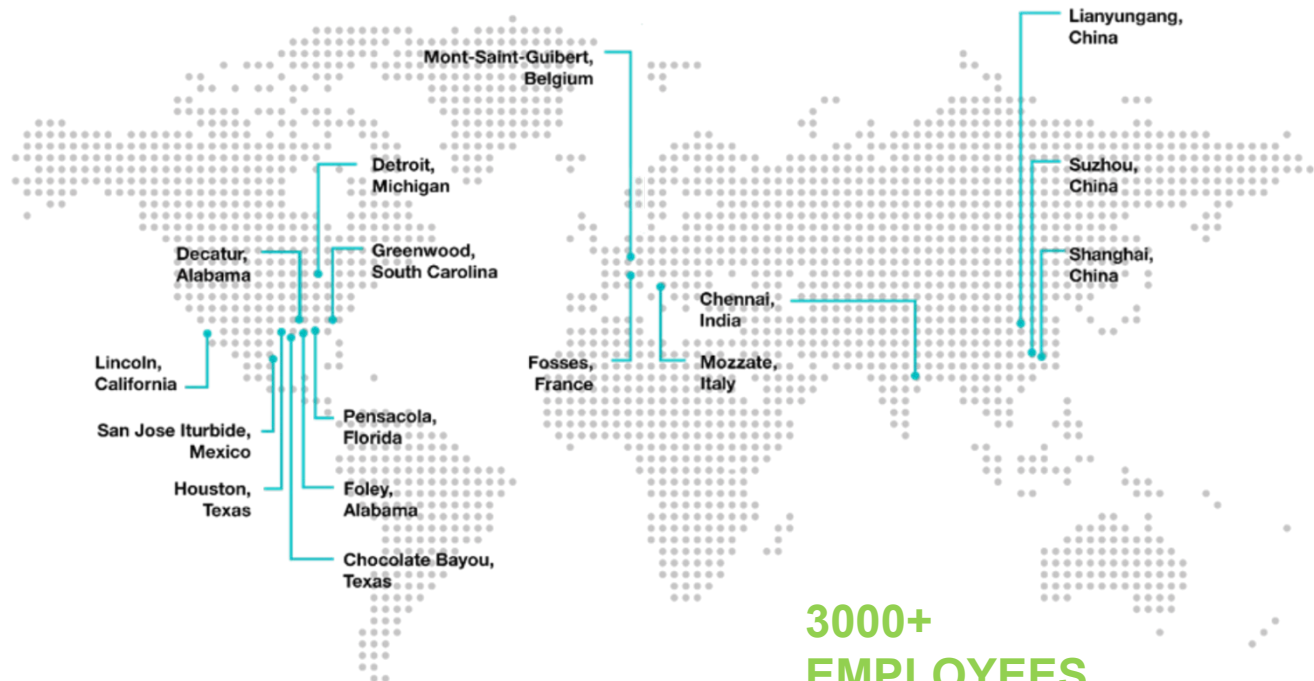
Business Development Manager



Ascend Overview

At a glance

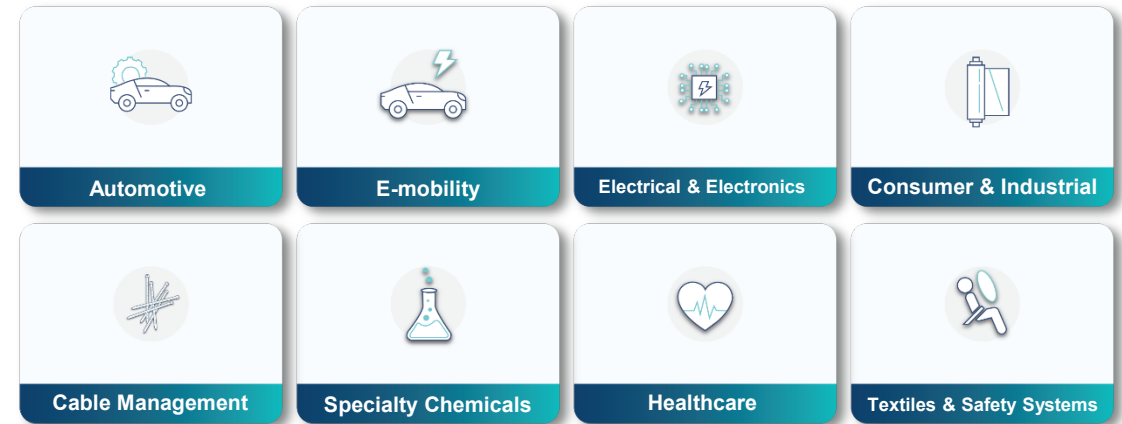
We make high-performance materials for everyday essentials and new technologies. Our purpose is to improve the quality of life today and inspire a better tomorrow.



3000+
EMPLOYEES

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Our markets



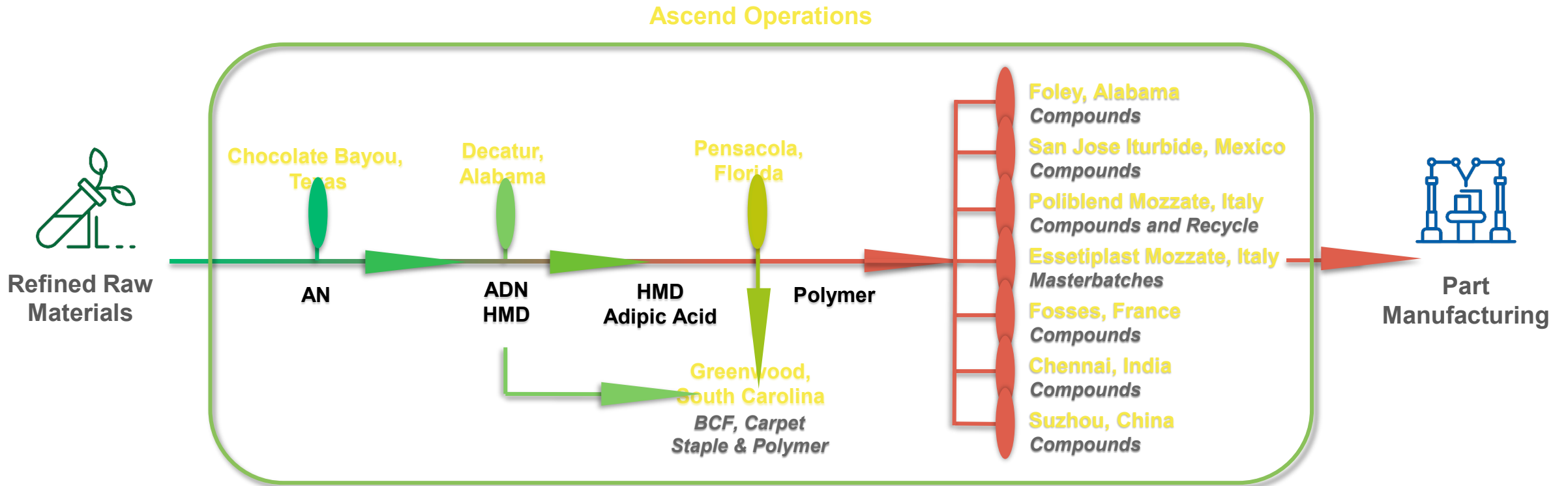
Participants in



Proprietary & Confidential

Global excellence, local service

Ascend is the world's largest fully-integrated PA66 manufacturer



HiDURA[®] MED

- Our solution for direct contact applications in health care

- High-performance polyamide 6,6 produced under the highest quality standards. Current portfolio includes neat, impact modified, and glass filled products.

- Our materials are:
 - ISO 10993-5 & -10 compliant
 - BSE/TSE, REACH, RoHS compliant
 - USP Class VI certified*

PARTNERSHIP

Years serving the industry through our distribution partners

Medical Equipment



RELIABILITY

Control raw materials and operations

Packaging



QUALITY

New certifications in place and process controls

Medical Durables



Surgical Instruments



Wound Care & Closures

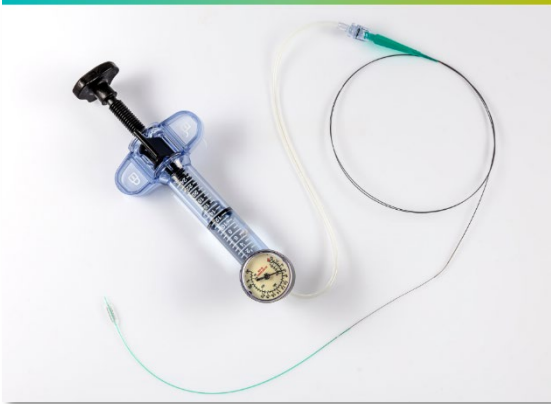


Drug Delivery



Where can we help today?

Inflation Device for Catheters



Valves



Medical Clamps



Surgical Tools



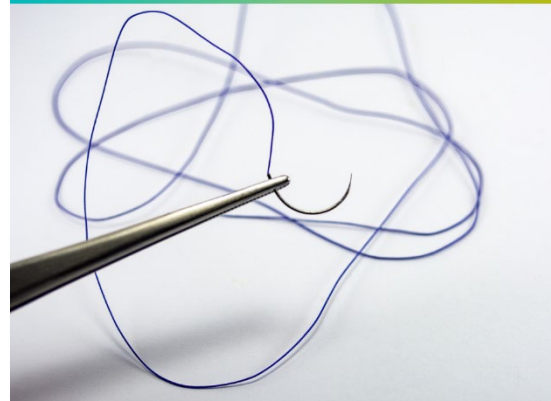
Catheter Jackets



Forceps & Scalpel Handles



Monofilament



Chest Compression





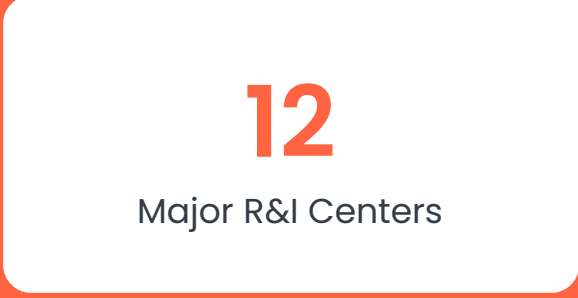
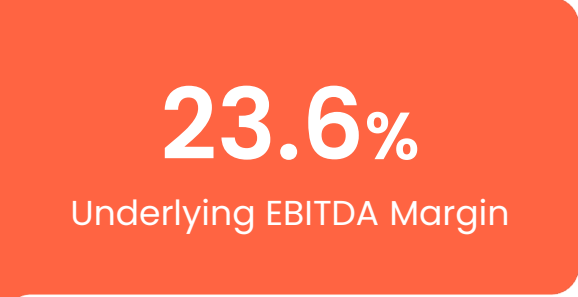
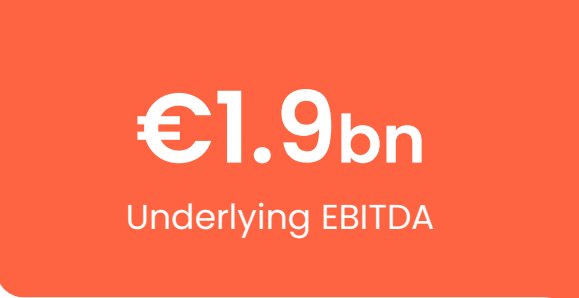
SYENSQO

Benoit Verdickt

Syensqo is a market leader in Materials & Consumers

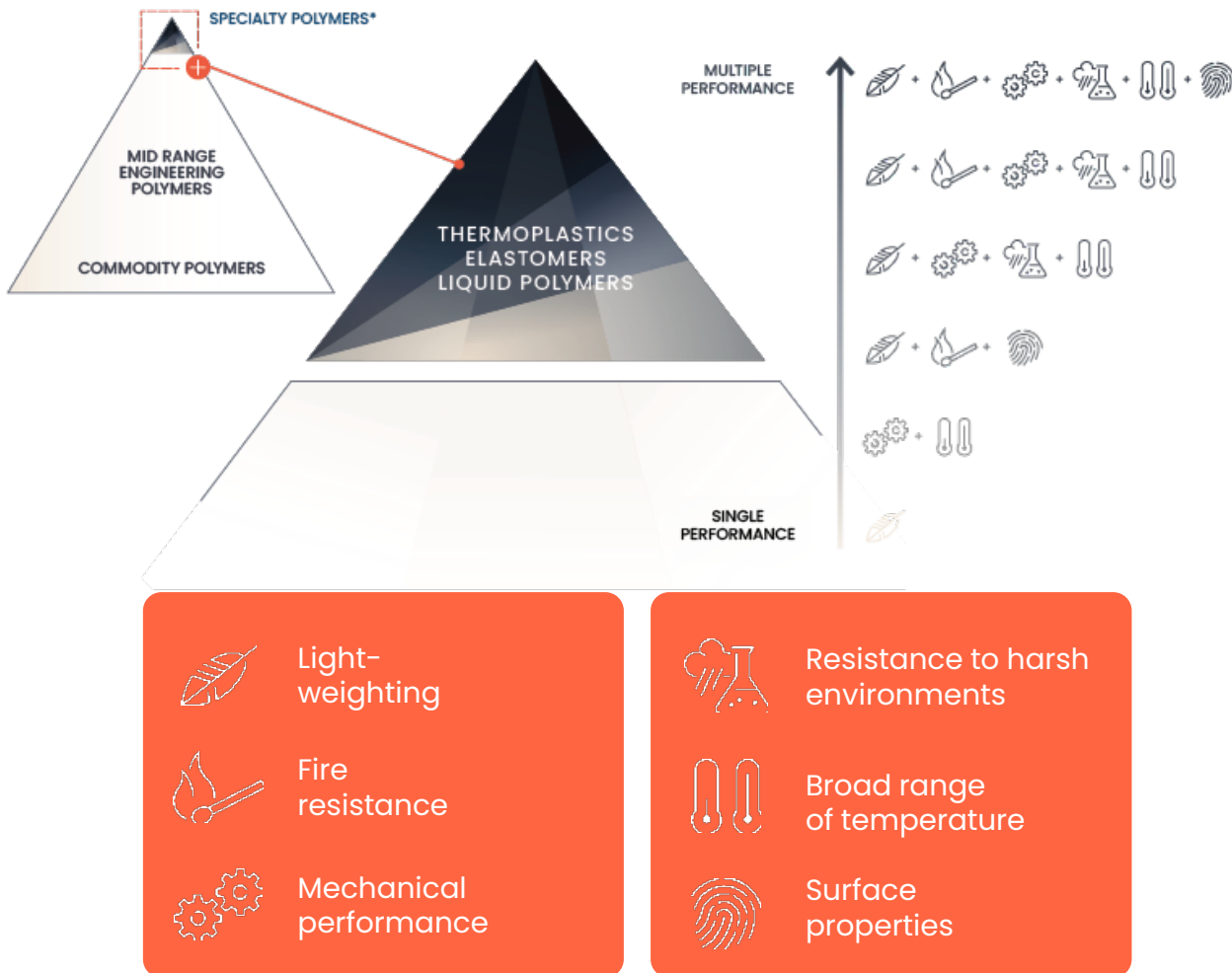
MARKET POSITION

MATERIALS	#1	High-performance polymers; leading position in thermoplastic composites <i>Battery Materials, Thermoplastic composites, Green Hydrogen, Renewable materials & Biotechnology</i>
	#2	Materials for civil aerospace
	#1	Materials for defense
CONSUMER & RESOURCES	#2	Specialty surfactants and polymers
	#1	Flavors & Fragrances; Natural Vanillin
	#1	Mining reagents
	#1	Biocides for recycled water



Industry leader in specialty polymers

Tiny molecules, huge impact



Advanced Lightweighting Solutions

TegraLite™
 • Composites

Biomaterials for Implantable Devices

Solviva® Biomaterials
 • Eviva® PSU
 • Veriva® PPSU
 • Zeniva® PEEK

Films

Ajedium™ Films

Fluorinated Elastomers

Tecnoflon® FKM

Fluorinated Fluids

Fomblin® HC PFPE
 Golden® PFPE

Fluoropolymers

Algoflon® PTFE
 Halar® ECTFE
 Solef® PVDF

Functional Fluids

Fluorolink® PFPE

Liquid Crystal Polymers

Xydar® LCP

Polyamide-imides

Torlon® PAI

Polyamides, Aromatic

Amodel® PPA
 Ixef® PARA
 Kalix® HPPA
 Omnix® HPPA

Polyketones, Aromatic

AvaSpire® PAEK
 KetaSpire® PEEK

Polyphenylene, Sulfide

Ryton® PPS

Polyvinylidene Chloride

Diofan® PVDC
 Ixan® PVDC Extrusion Resins

Specialty Materials

Aquivion® PFSA
 Long Fiber Thermoplastics
 Solvne® EAP

Sulfone Polymers

Radel® PPSU
 Udel® PSU
 Veradel® PESU

Materials for Healthcare



High-Performance Plastics

No patient contact
Applications

- KetaSpire® PEEK
- Radel® PPSU
- Udel® PSU
- Veradel® PESU
- Ixef® PARA
- Amodel® PPA



High-Performance Medical Grade Plastics

Limited exposure < 24 hours
BioPharma (USP Class VI)

- KetaSpire® PEEK
- AvaSpire® PAEK
- Ixef® PARA HC and GS
- Radel® PPSU
- Udel® PSU
- Veradel® HC PESU



Solviva Biomaterials for Implantable Devices

Prolonged exposure, 24 h – 30 d
Permanent exposure > 30 days

- Zeniva® PEEK
- Veriva® PPSU
- Eviva® PSU

Market trends shaping polymers in medical space



Market Trends

Connectivity, automation and miniaturization

Cost control in the industry

Sustainability

Changes in regulatory Environment

Syensqo Responses

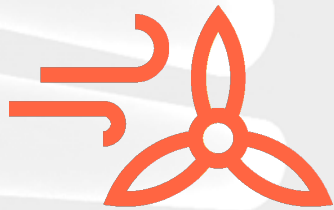
Dependable Global Regulatory Support

State-of-the-Art Technical Services and continuous new data generation

Broad range of material recommendations

Innovation in material performance and sustainability profile

SYENSQO approach to Sustainability



Manufacturing

- 65% SYENSQO sites using 100% renewable purchased electricity
- Carbon Neutral scope 1&2 by 2040



Lower GWP Solutions

- SYENSQO ECHO portfolio with recycled/bio content materials
- Mass Balanced Sulfone Grades for Healthcare



Circularity

- Ongoing projects, including:
- Single Use Instruments (Ixef® PARA)
- Udel® PSU in Medical Applications



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