



**HOW TO ACHIEVE
OUTSTANDING COLORS
WITH SULFONE POLYMERS
IN HEALTHCARE
APPLICATIONS**

SPEAKERS



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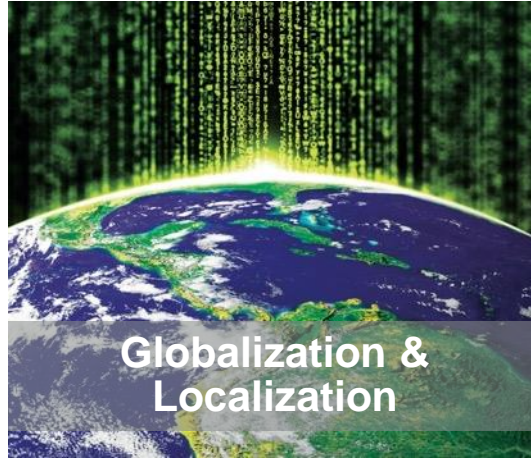
Sarah Mattern is the Senior Inside Sales Representative for Colorant Chromatics™ high-performance polymers at Avient Corporation for the DACH region.

TRENDS IN HEALTHCARE

SHAPING INNOVATION & SOLUTIONS



Improved Health & Wellness



Globalization & Localization



Increasing Life Expectancy



Increased Regulations

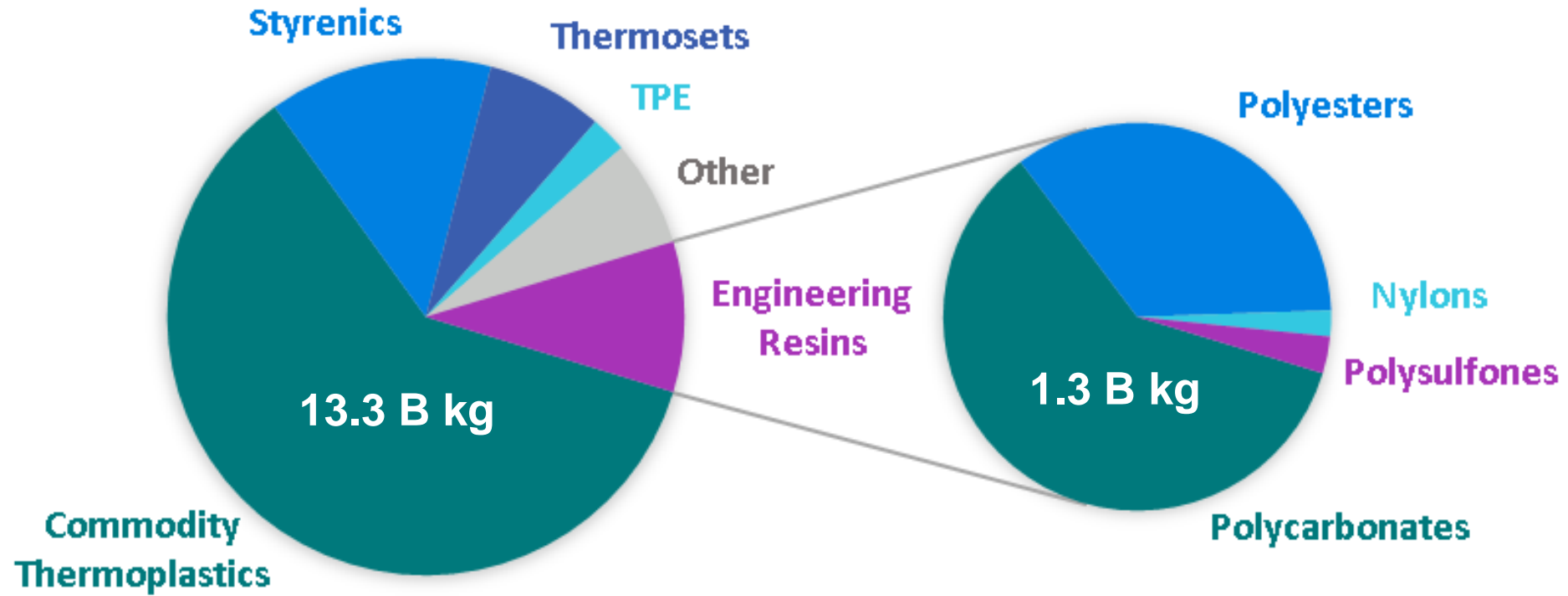


Innovation in Surgical Equipment



Home & Outpatient Services

GLOBAL HEALTHCARE PLASTICS MARKET



Polysulfones are expected to grow to 39,000 MT with a CAGR of 11% by 2025

TYPICAL APPLICATIONS

REQUIRING COLOR SOLUTIONS



SURGICAL INSTRUMENTS



MEDICAL EQUIPMENT
COMPONENTS AND IVD



BIOPHARMA PROCESSING AND
LIFE SCIENCES



OTHER

High performance and pleasing aesthetics are key

ADVANTAGES

SULFONE POLYMERS IN HEALTHCARE APPLICATIONS



Thermal and chemical resistance

- Extended product life
- Expanded reuse to support sustainability
- Sanitization flexibility with autoclave, steam, solvent

Amorphous / transparent resin

- Opaque and transparent options

CHALLENGES

SULFONE POLYMERS IN HEALTHCARE APPLICATIONS

Natural amber color

- Broad range of amber colorants from various sources and grades of base resin
- Batch-to-batch color variation

High processing temperature

- Requires more specific and advanced colorants and additives
- Color changes due to thermal history from processing

Initial raw material cost

- Up to high performance polymer range



MARKET NEEDS

WHEN ADDING COLOR



- Provide a clean appearance
- Achieve more vibrant colors
- Access a breadth of color options
- Secure a balanced performance with color
- Ensure security with biological evaluation and testing
- Withstand high processing temperatures and harsh cleaning agents
- Manage market dynamics and inventory

TO ANSWER KEY MARKET NEEDS

Colorant and additive selection

- Thermal stability
- Regulatory compliance
- Supply consistency

Process profile

- Optimized machine setup and parameters for best performance

Material handling

- QC for each step from raw material reception through shipping

Service

- Flexible order size and timely technical support
- Formulation lockdown

TRANSCEND™ SOLUTIONS

TRANSCEND™ PREMIER HEALTHCARE COLORANTS

- Brilliant, aesthetically pleasing colors
- Variety of choices for enhanced product design with processing flexibility
- Raw materials tested - ISO 10993 biocompatibility standard parts 4-5-10-11



Current

43 standard colors
36 opaque
7 transparent colors

Next

Customized Colors

TRANSCEND™ SOLUTIONS

TRANSCEND™ PREMIER HEALTHCARE COLORANTS



Solution

Raw materials tested for ISO 10993 biocompatibility*

Formulation expertise

Added value

Current

Polyarylethersulfone polymers

Pre-color, IR, laser marking, mold release

Customized, technical support, low MOQ

Next

PEEK and other HTP resins

Other functional additives and reinforcements

Advanced design support

SURGICAL INSTRUMENT OEM TIBIAL TRIALS

AVIENT SOLUTION

Transcend™ Premier Healthcare Colorants

WHY AVIENT?

- Delivered a variety of bright, differentiating color choices
- Maintained excellent mechanical performance after repeated steam sterilization and harsh chemical cleaning
- Offered low MOQ with flexible supply

KEY REQUIREMENTS

- Offered in various colors for ease of brand identification and sizing differentiation
- Able to withstand repeated steam sterilization and chemical disinfection
- Available in low minimum order quantities (MOQ)

SURGICAL INSTRUMENT OEM INTRAORAL SCANNER

AVIENT SOLUTION

Transcend™ Premier Healthcare Colorants

WHY AVIENT?

- Offered bright white and customized pre-colored formulations in PPSU and PSU for intraoral scanner head and body parts
- Provided a solution that can withstand up to 1000 autoclave cycles, with good chemical and excellent impact resistance
- Met customer request for color-stability after processing and regulatory compliance

KEY REQUIREMENTS

- Chemical and impact resistance
- Customized pre-colored solutions
- Color and dimensional stability after sterilization
- Minimal color deviation and easy to process
- Technical support and color expertise

SURGICAL INSTRUMENT OEM DENTAL SCALER

AVIENT SOLUTION

Transcend™ Premier Healthcare Colorants

WHY AVIENT?

- Achieved a clean, bright white color that provided a more pleasing experience for patients
- Allowed scaler to be laser marked for brand identification
- Met the need for impact resistance and successfully passed the drop test requirements

KEY REQUIREMENTS

- Attain an extreme white color to appear hygienic and aesthetically pleasing
- Ability to laser mark the brand
- Maintain impact resistance

AVIENT

ABOUT US



10,000
employees
worldwide



35,000+
solutions



\$3.65 billion
in 2022 sales



\$19.2 million
donated
since 2007



115+
facilities in
35 countries

CHALLENGE ACCEPTED

THANK YOU!

QUESTIONS?

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