# Huntsman Corporation Divisions

<table>
<thead>
<tr>
<th>Differentiated</th>
<th>Inorganic</th>
<th>Polyurethanes</th>
<th>Performance Products</th>
<th>Advanced Materials</th>
<th>Textile Effects</th>
<th>Pigments</th>
<th>Titanium Dioxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDI</td>
<td>Performance Specialties</td>
<td>Base Resins</td>
<td>Apparel &amp; Home Textiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyols</td>
<td>Performance Intermediates</td>
<td>Formulated Systems</td>
<td>Specialty Textiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PO/MTBE</td>
<td>TPU Systems</td>
<td>Specialty Components</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPU Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Image of MDI, Polyols, PO/MTBE, TPU Systems]

![Image of Performance Specialties, Performance Intermediates]

![Image of Base Resins, Formulated Systems, Specialty Components]

![Image of Apparel & Home Textiles, Specialty Textiles]

![Image of Titanium Dioxide]
Focused Industries

Improving product performance through chemistry
Our History

1758
Chemical Industry Basel (CIBA) is formed

1884
J.R. Geigy AG begins trading in chemicals and dyes

1961
Ciba merges with J.R. Geigy to form Ciba-Geigy

1996
Ciba Specialty Chemicals independent of Novartis

1997
Ciba-Geigy merges with Sandoz to form Novartis

2000
Vantico is formed for Performance Polymers

2003
Vantico is acquired by Huntsman and becomes AdMat division

2005
Huntsman becomes a public company

2012
Our Innovation

- **1946**: Araldite® is introduced to the adhesives market
- **1954**: Araldite® is introduced to the adhesives market
- **1955**: Furane introduces Epocast® to the electronics market
- **1979**: Furane introduces Epibond® to the adhesives market
- **1985**: Uralane® is introduced to the aerospace industry
- **1987**: RenShape® PUR tooling boards are introduced to the market
- **1988**: Arathane® polyurethane adhesives are launched
- **1993**: AroCy® is introduced to several markets
- **2000**: Performed Eposert® syntactic inserts introduced to the market
- **2012**: Vantico rebrands its line of epoxy curing agents to Aradur®

**Advanced Materials**
# Our Products

<table>
<thead>
<tr>
<th>Base Resins</th>
<th>Specialty Components</th>
<th>Formulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid epoxy resins</td>
<td>Curing Agents</td>
<td>Adhesives</td>
</tr>
<tr>
<td>Solid epoxy resins</td>
<td>Matting agents</td>
<td>Encapsulation</td>
</tr>
<tr>
<td>Epoxy solutions</td>
<td>Reactive Diluents</td>
<td>Tooling</td>
</tr>
<tr>
<td></td>
<td>BisF/EPN/ECN</td>
<td>Insulation</td>
</tr>
<tr>
<td></td>
<td>Waterbornes</td>
<td>Composites</td>
</tr>
<tr>
<td></td>
<td>Reactive PAA</td>
<td>Protection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Laminates</td>
</tr>
</tbody>
</table>
## Our Technology

<table>
<thead>
<tr>
<th>Base Resins</th>
<th>Specialty Components</th>
<th>Formulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Epoxy chemistry</td>
<td>7% Polyimides, BMI, CE, Benzox</td>
<td>6% Other Specialties</td>
</tr>
<tr>
<td></td>
<td>18% Amines, Anhydrides and others</td>
<td>8% Polyurethanes formulations</td>
</tr>
<tr>
<td></td>
<td>75% High performance epoxy</td>
<td>9% Acrylics formulations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>77% Epoxy formulations</td>
</tr>
</tbody>
</table>
End Markets

Base Resins

Specialty Components

Formulations

Coating

Construction

Wind

Industrial Composites

Aerospace

Electronics

Sports and Leisure

Power/Energy

Automotive

Industrial Adhesives

ARALDITE-Do it yourself

Advanced Materials
The Numbers

Revenue by regions
- 40% Europe
- 21% APAC
- 27% Americas
- 12% IMT

Revenue by SCU
- 19% Base Resins
- 30% Specialty Components
- 50% Formulated Systems

EBITDA
- $111,344,000

Figures based on 2011
Global Presence

2,300 employees, 80 countries, more than 1,500 products, over 2000 customers

4 regional headquarters
13 manufacturing sites
10 sales offices
Major Industries Players

A sample of some of our key competitors
Market Presence

Size represents revenue percentage
Global Partners

Aerospace
- Airbus
- Boeing
- Cytec
- Hexcel

Automotive
- Formula 1
- Lamborghini

Electrical Engineering
- ABB
- Alstom
- Schneider Electric
- Siemens

Wind
- Gamesa
- Vestas

Construction & Coatings
- AkzoNobel
- PPG Industries
- Sika
- Sherwin-Williams

Electronics
- Bosch
- Continental
Our products are extensively qualified to specifications of prepreggers and aircraft part manufacturers

We supply specialty chemicals, adhesives and tooling systems to OEMs, formulators and part producers

Our components make aircraft lighter, stronger and more energy efficient

Qualified in next generation commercial aircrafts: Boeing 787, Airbus 350 & 380

Composite usage in aircraft has increased from 10% to more than 50% in the last 10 years
Electrical Engineering

- Huntsman innovations are throughout the energy value chain, from power generation to transmission, distribution and storage - including solar and wind energy.
- We accompany and support our global key accounts and OEMs in Electrical Engineering having headquarters in Europe and setting the global trends.
- Since six decades we develop innovative solutions in all kind of electrical applications, such as the Araldite HCEP, the hydrophobic, water repellant epoxy for outdoor insulators.
Electronics

- A trusted partner in the Electronics industry for protection, safety and sustainability issues
- Huntsman has developed innovative solutions that are used during every stage in the production of printed circuit boards and electronic devices
- Our know-how and expertise allow us to develop epoxy and polyurethane systems that answer the most stringent requirements for electronics applications
More than a third of our global turnover comes from the Coatings & Construction industries

One of the broadest portfolios, providing a complete range of building blocks for application solutions

Our powder and liquid coatings products can be found in industries such as Transportation, Marine, Automotive, Architectural and Consumer White Goods

Commitment to environmentally friendly systems while addressing customer needs and market requirements
Automotive

- Our resin systems and building blocks are supplied to part manufacturers, prepreggers and OEMs
- High penetration of carbon composite parts in Formula One and other high end consumer vehicles
- Strong market drivers include performance, safety and lighter weight
- Adoption of composite materials in mass market vehicles represents a huge opportunity for Huntsman
Wind energy

- More than 20 years commitment to the wind turbine industry
- Significant growth opportunities in the European offshore market and Asia Pacific
- Comprehensive range of lighter, stronger, longer-lasting materials
- Specialty components for prepreggers
- Formulated systems for blade, turbine and mould makers

Source: Vestas
Industrial and Consumer Adhesives

- ARALDITE® covers a broad range of applications for the industrial and consumer markets
- A leading brand in Europe for over 60 years
- Strong brand recognition in emerging markets such as India and Brazil
- Several chemistries and different technologies
- ARALDITE® adhesives can bond virtually anything
- Strong B2B growth

<table>
<thead>
<tr>
<th>Application</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staples &amp; Tacks</td>
<td>55%</td>
</tr>
<tr>
<td>Soldering</td>
<td>30%</td>
</tr>
<tr>
<td>Welding/Brazing</td>
<td>4%</td>
</tr>
<tr>
<td>Structural Adhesives</td>
<td>10%</td>
</tr>
<tr>
<td>Industrial Fasteners</td>
<td>3%</td>
</tr>
</tbody>
</table>
In Sport & Leisure every gram counts

Lightweight, strength, flexibility, design freedom and fatigue resistance are key factors affecting athletic performance

Advanced Materials has over 50 years experience of combining design materials, composite resins and adhesives for consumer products

We enable Sports & Leisure manufacturers to exceed the high performance expectations of their customers

Largely EU based and built on brand awareness
Maintaining Strong Partnerships

■ Trusted, long-term customer relationships

■ Global manufacturing footprint designed for developing markets

■ Diverse portfolio

■ High technical and scientific expertise

■ Product quality and reliability

■ Recognized solutions provider
Legal Disclaimer

Copyright © 2012 Huntsman Corporation or an affiliate thereof. All rights reserved.

The use of the symbol ® herein signifies the registration of the associated trademark in one or more, but not all, countries. While the information and recommendations included in this publication are, to the best of Huntsman’s knowledge, accurate as of the date of publication, nothing contained herein is to be construed as a representation or warranty of any kind, express or implied.