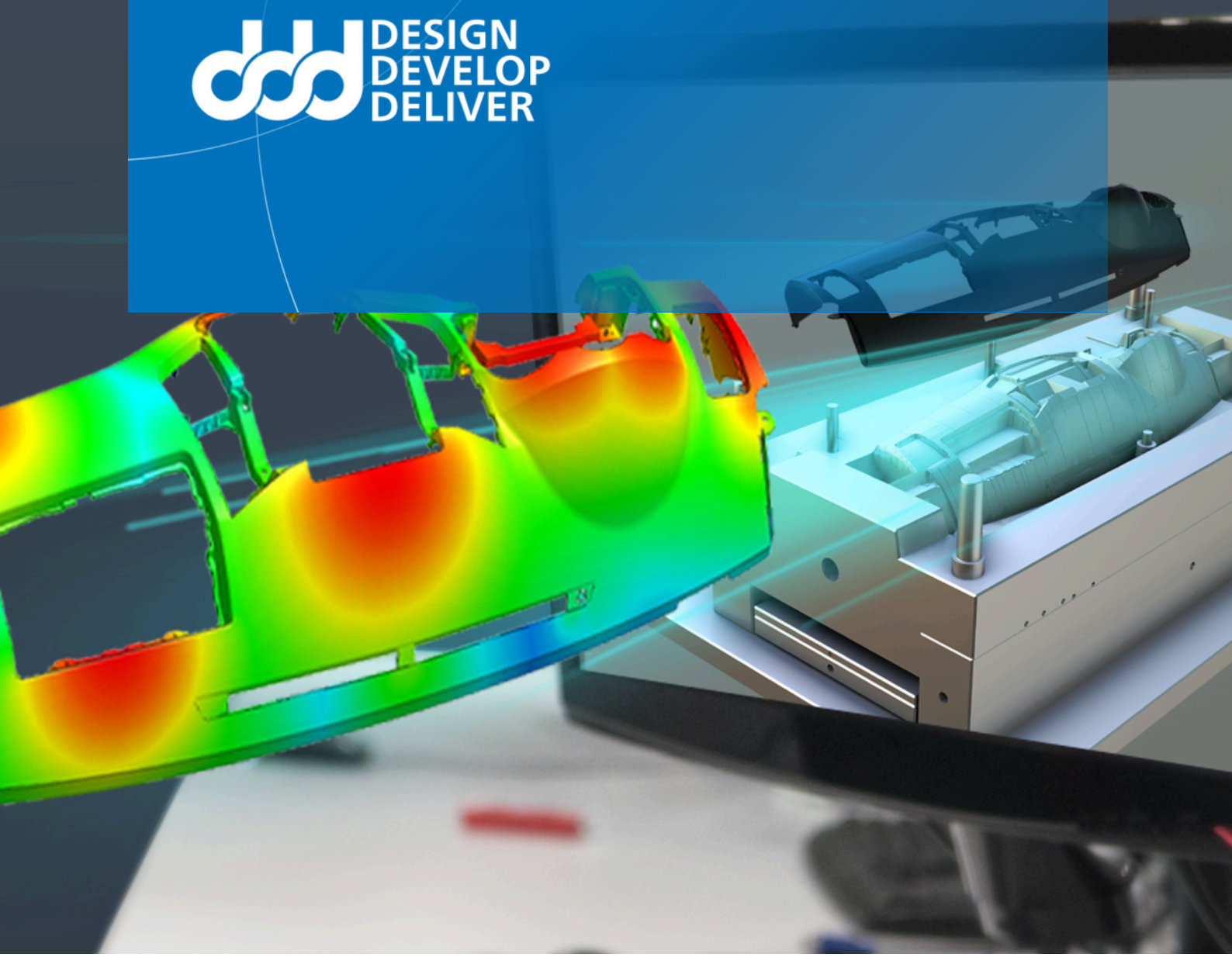
Omya Performance Polymer Distribution

DESIGN
DEVELOP
DELIVER



THINKING OF TOMORROW

Omya Performance
Polymer Distribution

About Omya Performance Polymer Distribution

Omya Performance Polymer Distribution is a global leader with a legacy of excellence, innovation and expertise in the sales and application development of thermoplastic polymers, elastomers and rubber.

Our team of highly experienced technical sales people is able to meet your requirements and exceed your expectations, whilst adding value to your business.

The team is supported in every market by our development engineers, who have an unrivalled knowledge of every aspect of polymer technology including design of parts and moulds, polymer selection to achieve best performance, troubleshooting and optimising the production of parts.

Our long-term partnerships with world-class suppliers strengthen our knowledge and give us an extensive range of high-quality products to provide a material solution for every application.

All of our suppliers are REACH compliant and we hold various certifications and quality standards across our businesses, including ISO 9001, ISO 14001, ISO 45001, ISCC+, and Ecovadis ratings.

Our portfolio contains products and solutions that fulfil the requirements of leading and emerging industries.

The range is accompanied by certifications and approvals for the automotive, medical, food and electrical industry. Strategically located warehouses support us to offer tailored delivery solutions globally. Materials are available from 25kg bags to full truckloads, octabins, big bags and bulk delivery. Whenever required, we can repack material in our warehouse into the desired packaging.

Value-added services for tailored solutions

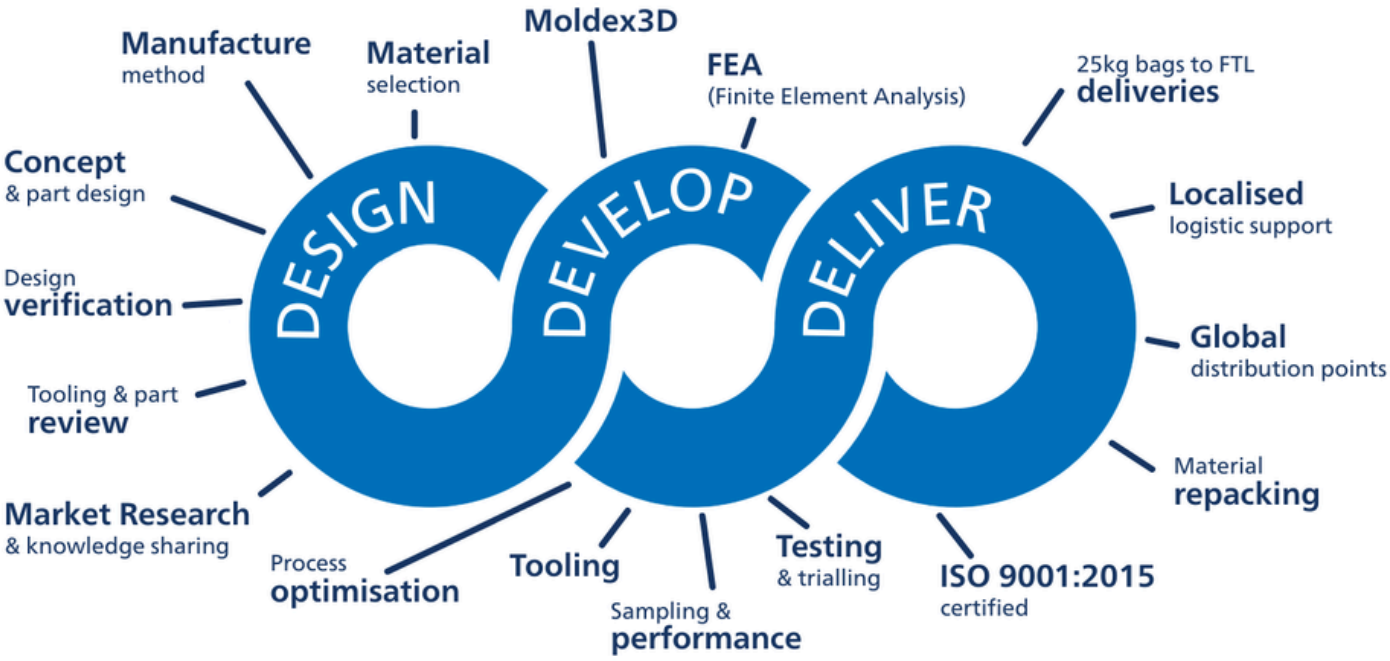
For our customers, we continuously seek value- adding solutions to enhance processes and improve properties of numerous polymers, engineered plastic applications and rubbers.

For decades, we have cultivated a tradition of focused and dedicated technical service. This track record has given us the technical experience and skills to help customers continuously add value by improving their processes, applications and final products. Our customers often consult us for advice on complex problems, knowing that, with our support, they will find and rapidly implement sound technical solutions regarding formulation and processing.

We provide on-site technical advice to our customers around the globe as well as technical training tailored to the requirements of their employees.

DESIGN DEVELOP DELIVER

Design, Develop & Deliver with Omya Performance Polymer Distribution



DESIGN DEVELOP DELIVER

DESIGN

Our dedicated team of highly skilled development engineers can assist you right from the earliest concept stages of product development. By utilising Omya Performance Polymer Distribution's expertise from day one of your concept and part design, you can take advantage of our experience and knowledge of related product designs with access to our extensive database of best design principles. This will enable you to get it right first time, knowing what works well and what to avoid, whilst remaining cost and time effective.

Omya Performance Polymer Distribution's Development Engineers are complemented by part and tool designers. By attending tooling and part reviews, we can further share our experiences on best practice for mould tool designs. We can help ensure runners and gates are optimally designed for our polymer, considering the part wall section and what's needed to fill and pack it correctly. Using our Moldflow analysis, two ways that we can provide design verification is to confirm best practices for venting and advise on best tool surface finishes to aid part ejection. We can also discuss moulding options for high friction elastomeric materials.

Omya Performance Polymer Distribution has thousands of polymer grades to offer you, and considering your technical requirements and project parameters, we can identify which specific grades could meet your needs. We consider any thermal and chemical resistance requirements, any weight or load the product needs to bear and any certification (WRAS, REACH. UL 94, Food etc.) that is necessary, to determine which polymers are suitable. Along with material selection support, we can advise on the optimal manufacture method considering your product, the material and the associated specifications.

Omya Performance Polymer Distribution and supporting supply partners regularly commit to market research and knowledge sharing, in order to observe and monitor market trends, innovations and changes in regulations in order to enhance our polymer portfolio. By working in partnership with Omya Performance Polymer Distribution, we can introduce you to new innovative polymers which benefit your products and add value. Our experts will work with you to consider all aspects of product, part and tool design to produce your products successfully, efficiently and effectively.

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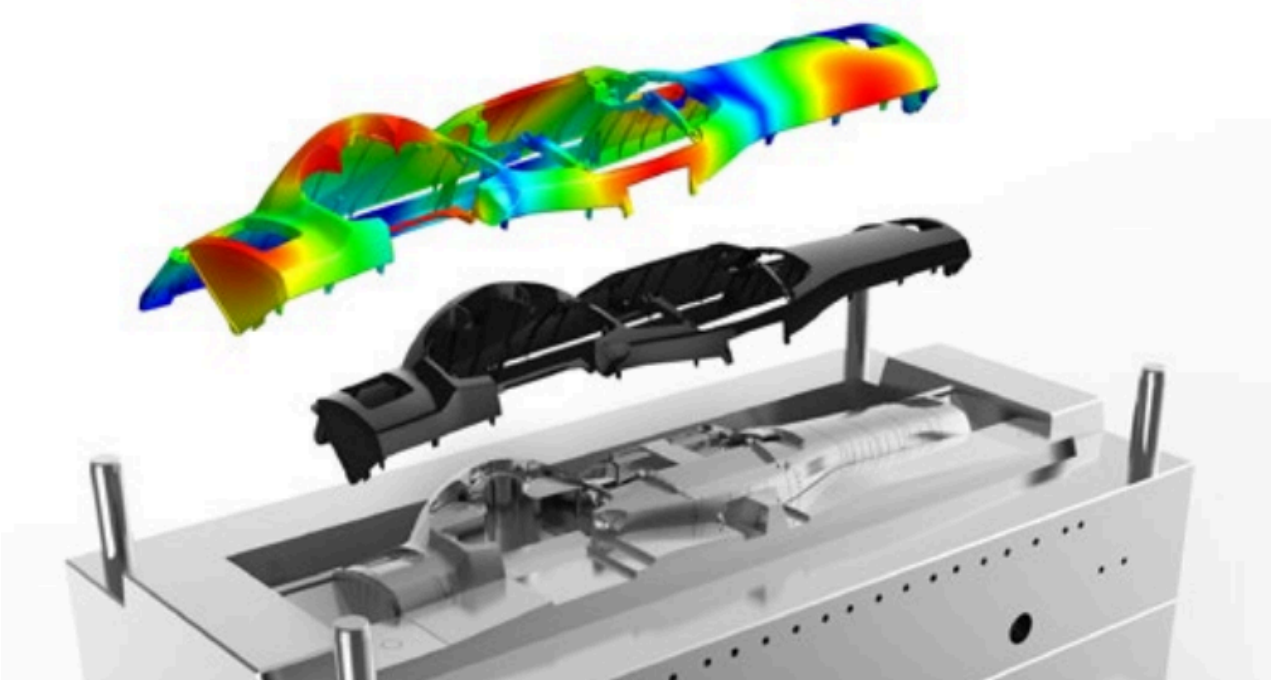


DEVELOP

Omya Performance Polymer Distribution is an official outlet for Moldex3D simulation services. By applying your design in Moldex3D, we can simulate how the part fills with our thermoplastics. This analysis enables us to ensure that the designed part will fill properly with acceptable filling pressures and flow rates. We can also detect potential sinkage and gas trap faults and determine the best gate positions.

The Omya Performance Polymer Distribution Engineering team are expertly trained on process optimisation and are supported by an extensive database of scientific processing data. We can assist with the tooling process, by attending tool trials and troubleshooting sessions to support you to get the most out of our polymer. Working together through the testing and trialling stage, we can help resolve your processing challenges, going back to basic principles and re-establishing the best settings to get the optimum part and yield.

Omya Performance Polymer Distribution has access to various laboratory facilities to analyse actual parts, sampling and performance.

If you have a sample part and need to identify the resin type, we can use our facilities and laboratory methods to identify a polymer type via FTIR, DSC, TGA, MFR and more. We can also support you with issues concerning part failure, in order to determine what went wrong. Through various part fault analysis methods, including the use of electron bean microscopes and microtome sections, we can evaluate the fault or stress areas to discover where the issue(s) lie, and then work with you on a resolution. As well as this, we can help ensure moisture sensitive polymers are dried correctly using our IR weight lost testing equipment. By using your 3D part data, we can look at whether or not the design is capable of withstanding a given load by performing a Finite Element Analysis (FEA). We can further look at any areas where stresses concentrate and give advice on how to alter the design to spread the load to avoid potential part failure. With some of our materials, we can also simulate drop impact scenarios to understand how the part performs when accelerating towards another object. We can analyse, optimise and resolve your processing challenges with our knowledge, experience and technical resources.

DESIGN DEVELOP DELIVER

DELIVER

Omya Performance Polymer Distribution is serious about safety. Safety is our first priority: safe transport and storage of products, safe operational practices and safe working conditions enable us to protect our employees, customers, suppliers and the environment. We know how important it is to have your material in the right place, at the right time, for the right job. Considering this, Omya Performance Polymer Distribution has made significant investments in their warehousing and logistics facilities so that we can deliver in full, on time, every time. With localised logistic support across our group. We can export material to anywhere around the world, from 25kg single bags to full truck loads, octabins to bulk deliveries and more. If you require your polymer to be repacked, we can offer a material repacking service to guarantee that your material is delivered exactly how you require.

To ensure continuity of quality and excellence, Omya Performance Polymer Distribution has dedicated warehousing facilities, suitable for the storage and distribution of a versatile portfolio of polymers including medically certified products.

Optimally located warehouses enable us to offer our customers next day delivery, meaning that we can alleviate issues related to unexpected planning. ISO 45001:2018, ISO 9001:2015 and ISO 14001:2015 certified, with internal safety regulations being of the utmost importance, you can rely on Omya Performance Polymer Distribution to effectively and efficiently deliver your solution. With experienced and highly qualified logistical teams across our global distribution points, Omya Performance Polymer Distribution is able to commit to maintaining a positive environmental culture through the successful planning of operations, provision of suitable facilities and responsible waste management. Our comprehensive logistic network enables the efficient and reliable delivery of your material, where and when you need it.

Moldex3D services from Omya Performance Polymer Distribution

Moldex3D is the world-leading CAE product for the plastic injection moulding industry, with best-in-class analysis technology. Omya Performance Polymer Distribution specialists are highly experienced in leveraging the power of Moldex3D technology to carry out in-depth simulations of the widest range of injection moulding processes and to optimise product designs and manufacturability.

Why choose Moldex3D?

- To shorten cycle time and time-to-market
- To reduce the number of mould trials and manufacturing costs
- To increase revenue and ROI
- To minimise product defects and extend mould life

Advantages during part design

Moldex3D enhances part design by optimising gating, injection parameters, and weld line positioning for better aesthetics and mechanics. It detects defects like sink marks, air traps, and excessive shear rates early, allowing for timely corrections. The software also aids in geometrical modifications, thickness optimisation, and deformation prediction, enabling precise CAD adjustments. This proactive approach streamlines development, reduces costly trial-and-error iterations once tooling has been cut, and improves overall part quality.

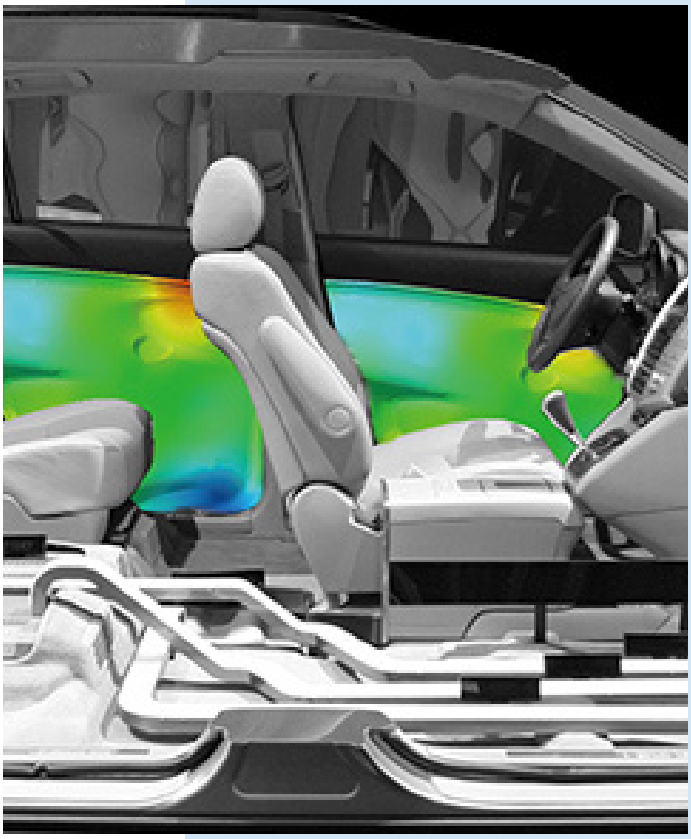
Advantages during mould design

By conducting simulations that also include the mould cooling channels, it ensures that the design is fully integrated and results are more closely aligned to real-world performance. In addition, cooling simulation plays a crucial role in identifying hot spots within the mould, allowing for the proposal of modified or targeted solutions to achieve uniform cooling. This comprehensive approach helps to minimise defects, improve cycle times, and ensure the highest quality in the final product.

Advantages during production

Plastic injection simulation enhances production by providing valuable insights into machine settings and real-world performance. Forensic simulations help to build know-how by correlating simulation results with actual outcomes, allowing for process optimisations that can lead to reductions in cycle time and/or improved quality of parts. Additionally, pathline analysis shows plastic flow trajectories, detecting pressure, orientation, and stress lines.

Moldex3D



In our industry, we all need polymer solutions that are **sustainable** and **safe**.

Find out more at omya.com

Omya Performance Polymer Distribution

Please contact your local Omya Performance Polymer Distribution representative or visit our website www.omya.com for further information.