

ADVANCED INSULATION INNOVATES ITS CONTRATHERM OIL AND GAS PRODUCT RANGE AND INCREASES COMPETITIVE ADVANTAGE WITH WESSEX RESINS

When Advanced Insulation needed to give its subsea product Contratherm® a yellow finish to increase visibility underwater, the company turned to Wessex Resins. With specialist skills and experience in epoxy formulation, Wessex Resins was able to create durable, glossy flow coat for Advanced Insulation in exactly the right shade of subsea yellow. This project has helped Advanced Insulation differentiate its Contratherm product in the marketplace and achieve competitive advantage.

Challenge

Advanced Insulation, which specialises in composite-type materials and syntactic phenolic resin-based products, has been helping oil and gas companies protect their assets and people for almost 15 years. During that time, the company's R&D team has grown rapidly from just 1 person to more than 12 people.

To help clients insulate and protect their high-value equipment in subsea environments, Advanced Insulation has created a unique phenolic resin-based formula called Contratherm®. While this delivers industry leading performance, it turns dark brown over time, which negatively impacts visibility underwater for clients' remote operated vehicles (ROVs) and maintenance teams.

Pete Mellersh, Technical Support Specialist at Advanced Insulation, says, "One of our customers asked if we could deliver Contratherm in a standard subsea yellow colour to aid visibility for ROVs and maintenance crews. We quickly said we'd look into it for them."

Pete and his team first considered simply painting Contratherm to provide the visibility their client needed, but this option was quickly discounted. "We were concerned that the paint wouldn't adhere well to the surface of the laminate and that coverage would be patchy," says Pete. "We needed something that would provide a hard, glossy, durable finish in exactly the right shade of yellow."

Solution

Pete and his team looked into the possibility of applying a coloured, underwater-capable resin to the surface of Contratherm to meet the client's needs. To see if this plan would work, the team contacted Wessex Resins, a leading provider of epoxies



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Pete Mellersh, Technical Support Specialist, Advanced Insulation

that has been developing and manufacturing leading product lines and custom formulations for clients since 1981.

"We knew that Wessex Resins has an established range of underwater resins that can be applied to wet substrates, which was a great start," says Pete. "We also knew that Wessex Resins creates custom formulations for its clients, which is exactly what we needed to achieve the right shade of yellow."

Working closely with the Advanced Insulation project team, together with the chief chemist, Wessex Resins created a custom formulation of the company's WESSEX 4301 product, a low-viscosity resin for subsea laminating. "Wessex Resins tweaked the standard product to increase the opacity of the resin's finish and achieve the right shade of subsea yellow," says Pete. "Their flexibility and attention to detail were key to the success of the project."

When applied to the sanded surface of the Contratherm product, the bespoke formulation developed by Wessex Resins forms a hard, protective yellow coating. This helps to protect high-value equipment in the hostile marine environments by ensuring that water can't penetrate Contratherm's fibreglass laminate. The epoxy system developed by Wessex Resins allows us to deliver a product that performs better in terms of protecting clients' equipment, while also providing the visibility that discovery and maintenance teams need," says Pete.

Benefits

A differentiated product

By meeting its client's need for a tough, long-lasting yellow finish, Advanced Insulation has added value to its Contratherm product and differentiated its solution in the marketplace. "Using this kind of coating rather than paint demonstrates our commitment to delivering the best quality for our customers," says Pete. "It also shows that we are continuing to innovate our product range and it sets us apart in the industry."

The right skills and experience

Wessex Resins was able to deliver a bespoke solution for Advanced Insulation that is not available from any other epoxy manufacturer. "Many providers simply offer standard products, but that isn't always good enough," says Pete. "Wessex Resins is different: they have the specialist knowledge and skills needed to adapt standard formulations and provide bespoke systems that are precisely mapped to our business needs."

Success in partnership

Advanced Insulation has built a close, trust-based relationship with Wessex Resins, helping both companies to succeed. "With some providers it's hard just to get a sample without providing full details of the sales potential for the product," says Pete. "By contrast, Wessex Resins takes a consultative approach, helping us understand the options available to us, testing prospective solutions and developing the custom formulations we need. We see Wessex Resins as a partner, not just a supplier."

Effective project delivery

As an additional benefit, Wessex Resins provides fast, reliable, responsive service. "With Wessex Resins, we can be sure we'll get what we need, where and when we need it," says Pete. "As well as delivering our custom formulation on time and on budget, we know we will get quick answers from Wessex Resins to any future queries or service requests."

Ability to meet clients' current and future needs

As an extension to the development of the yellow subsea resin, Wessex Resins has provided other products for Advanced Insulation, including a similar resin with a white opaque finish. "We don't know how our customers' needs will evolve, but we're sure that Wessex Resins will be able to support us, whatever the future holds," says Pete.



Subsea structure with yellow coated insulation.

Challenge

- Changing the colour of subsea insulation product Contratherm from brown to bright yellow
- Ensuring that the colour adheres to the surface of Contratherm effectively
- Avoiding 'patchy' coverage, which is common with paints

Solution

- A bespoke formula from Wessex Resins based on an existing underwater resin system
- A hard, glossy, durable coating that helps to protect high-value equipment in hostile marine environments
- Improved visibility for ROVs and maintenance teams

Benefits

- Unique subsea yellow flow coat helps Advanced Insulation maximise its competitive advantage
- On-time, on-budget project delivery
- Ability to meet clients' specific needs, both now and in the future

Contratherm® is a registered trade name of Advanced Insulation.