

## Water-based Corrosion Innovation Awarded UK Patent



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Applied Graphene Materials (AGM), the producer of specialty graphene nanoplatelet dispersions, announced the issuance of UK Patent No. GB2585648, covering the use of Graphene Nanoplatelets in water-based anti-corrosion protective coatings applications.

According to [AGM](#), graphene nanoplatelets have been shown to provide highly effective barrier properties, enhancing corrosion prevention in solvent-based paints through the use of high-performance dispersions. The introduction of Graphene nanoplatelets into water-based paints has been historically problematic due to the challenges in producing effective and stable dispersions for water-based systems. AGM's range of water-based dispersions have now been demonstrated to enhance corrosion performance in such systems.

This technology development enables primer systems to achieve ISO 12944 category C3 or C4 corrosion rating performance where typical environments include urban and industrial atmospheres, moderate sulphur dioxide pollution, or coastal areas with low to moderate salinity.

Adrian Potts, Chief Executive Officer of AGM said, "The global cost of corrosion is substantial and there is significant and growing pressure within the international coatings industry to reduce and ultimately remove the dependence on harmful volatile organic compounds (VOCs). The move towards a water-based technology solution is a primary goal for many protective coatings innovators.

Overcoming the challenge of dispersing graphene nanoplatelets into such coatings has been a significant area of development for AGM's technical team, and I am pleased that this technology has resulted in patent coverage. This latest dispersed product technology offers the coatings industry a new tool in the formulation of water-based systems. It provides a

further opportunity to narrow the gap in solvent and water-based coating performance by enabling the use of graphene nanoplatelet materials thereby supporting the move away from solvent-based products.”

Read the [original article](#) on Marine Link.