



IAEG

INTERNATIONAL AEROSPACE
ENVIRONMENTAL GROUP

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A&D Collaboration leading to significant progress on material alternatives

Warrendale, PA, January 19, 2021 -- In 2020, the International Aerospace Environmental Group (IAEG) has been engaged in a number of exciting projects focusing on technologies affected by EU REACH and investigating potential chemical and material replacement alternatives available to the aerospace industry. IAEG's Working Group 2 (Replacement Technologies) takes the lead in this area and, in 2020, achieved several key deliverables through implementation of innovative cross-industry collaboration methods.

- The Corrosion Inhibiting Epoxy Primers (CIEP) project conducted a technical exchange project evaluating data from seven collaborating member companies on non-chromated corrosion inhibiting primers with epoxy binders, used to provide corrosion protection to metallic substrates. As a result, the CIEP project yielded a screening specification detailing a set of product requirements available to support an initial evaluation of potential EU REACH compliant coatings. This document is designed as a guide to suppliers, helping them understand the criteria to be applied to produce EU REACH-compliant epoxy primer products for aerospace and defence by providing a quick tool to assess candidate replacements and select those which will go forward for full qualification.
- The Bond Primer project carried out a technical exchange project where seven member companies collaborated to exchange information on key requirements for implementation of chromate-free bond primer and adhesive systems for aerospace applications. The team also compiled results for commercially available products that have already been tested by the participating companies. The team has collectively developed minimum acceptance and performance requirements for EU REACH compliant bond primer and adhesive systems.
- The Cadmium Plating project team wrote a new ZnNi AMS plating standard which establishes requirements for applying a highly corrosion resistant zinc-nickel plating, that is a preferred cadmium alternative for fasteners and standard parts. This standard has now been approved by the SAE Aerospace Council and is published as AMS2461. The project team now is working with standards bodies seeking the standard's adoption on part drawings for supply of EU REACH compliant standard parts.
- The Hard Chrome Plating project team completed a screening activity looking at current supply chain products as potential alternatives to hard chrome plating. The team also has contacted suppliers offering new potential alternatives, or Upcoming Technologies, in the area of hard chrome plating. The team's screening effort led to publication of a technical report summarizing their findings, available for review on the IAEG website.

To learn more, visit the IAEG website at www.iaeg.com or contact Laura Wilkinson, IAEG Work Group 2 Lead (laura.wilkinson@rolls-royce.com).

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