

Subject: Withdrawal of jointing compounds JC5A, JC11 and CA1101      Sealant ES Bulletin No. S-ESB-25-29

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## Summary:

This Engineering Services Bulletin communicates the future withdrawal of chromated jointing compounds JC5A, JC11 and CA1101.

## Details:

This Engineering Services Bulletin is issued to communicate the future withdrawal of chromated EMEA jointing compounds JC5A, JC11 and CA1101 and provide a comparison with PPG Chrome free Jointing CA1000 and CA1010.

The JC5A, JC11 and CA1101 jointing compounds contain Barium Chromate – CAS: 10294-40-3, REACH #: 01- 2120769889-24.

In line with PPG's continuous striving for sustainability complying with REACH initiative to restrict this substance PPG will stop selling the chromate containing jointing compound JC5A, JC11, CA 1101 end of 2026.

Customers are recommended to consider the PPG Chrome Free Jointing compounds CA1000, CA1000V and CA1010 as alternatives to the Barium Chromate compounds.

Specifically, for JC5A our recommended alternative is CA1000. JC5A is qualified by AIRBUS in ABP 4-5144 which lists AIMS 04-05-005 for CA1000 and CA1000V as the preferred alternative materials. Appendix 1 of this ESL compares the alternative PPG Jointing Compounds ;



Christelle Gauteux

Engineering Services Department

PPG Aerospace

E-mail : [gauteux@ppg.com](mailto:gauteux@ppg.com)

[AeroEngineeringServicesEMEA@ppg.com](mailto:AeroEngineeringServicesEMEA@ppg.com)

Joining Compound	CA 1000 and CA1000V*	CA 1010 Mastinox CF	CA1101 (MASTINOX D40)	JC5A	JC11 (Celloseal QH Blue)
<b>Chemistry</b>	CA 1000 is a non-curing, non-chromate corrosion inhibitive compound. CA 1000 is a one-part, epoxy capped, Permapol® polysulfide compound.	CA 1010 is a non-curing, non-chromate corrosion inhibitive compound. CA 1010 is a one-part, polyester compound.	CA 1101 is a non-curing, barium chromate corrosion inhibitive compound. CAS: 10294-40-3, REACH #: 01-2120769889-24. CA 1101 is a one-part, silicone compound.	JC5A is a non-curing, barium chromate corrosion inhibitive compound. CAS: 10294-40-3, REACH #: 01-2120769889-24. JC5A is a one-part, synthetic resin compound.	JC11 is a non-curing, barium chromate corrosion inhibitive compound. CAS: 10294-40-3, REACH #: 01-2120769889-24. JC11 is a one-part, acrylic co-polymer compound
<b>Colour</b>	CA1000 Off White CA1000V/Violet (Pale Blue)*	Off White	Yellow/Off White	Yellow/Off White	Blue
<b>Density</b>	1.34 g/cm <sup>3</sup>	1.37 g/cm <sup>3</sup>	1.14 g/cm <sup>3</sup>	1.49 g/cm <sup>3</sup>	1.43 g/cm <sup>3</sup>
<b>Solids content</b>	88 %	89 %	83%	80%	62%
<b>Viscosity</b>	950 Poise	840 Poise	Not Applicable - thixotropic paste	750 Poise	45 Poise
<b>Service Temperature</b>	CA1000 has a service temperature range from -65°F (-54°C) to 240°F (116°C), with intermittent excursions up to 275°F (135°C).	CA1010 has a service temperature range from -65°F (-54°C) to 320°F (160°C).	CA1101 has a service temperature up to 392°F (200°C).	JC5 has a service temperature range from -54°C to 100°C.	JC11 has a service temperature range from -54°C to 100°C.
<b>History and recommended Chrome Free alternatives</b>	CA1000 was qualified as a Chrome Free alternative to Mastinox 6856H (1912/3600). Mastinox 6856H is obsolete.	CA1010 was qualified as a Chrome Free alternative to Mastinox 6856K (1913/3600). Mastinox 6856K is obsolete.	Legacy Mastinox product. CA1010 is the CF alternative for temperatures up to 160°C.	Legacy MOD jointing – CA1000 and CA1000V is the CF qualified and preferred alternative choice for AIRBUS. CA1010 is the CF alternative qualified for SAFRAN.	Legacy MOD blue compound for electrical jointing areas. CA1000V CF violet blue jointing compound may be considered as a suitable alternative.
<b>General description</b>	All the PPG Corrosion Inhibiting jointing compound acts as an effective barrier coating against the common causes of corrosion on aluminium alloys, or between dissimilar metals (including Stainless Steel). The coating compounds remain permanently "mastic in character" after prolonged exposure to air-crafts fuels and salt water. The non-setting characteristic allows for use in assemblies exposed to vibration, and for removal of the coating for inspection of joint integrity and replacement with fresh compound in routine maintenance checks for critical joining areas in the aircraft. The materials are thixotropic pastes suitable for application by brush or spatula and thicken after application on solvent evaporation to prevent flow in service.				
<b>Specification approvals</b>	AIRBUS - AZMS 552-010 AIRBUS - AIMS 04-05-005* BOMBARDIER - BAMS 552-010 Eurofighter - SP-J-513-B-0313 EMBRAER – MEP 09-060 LEONARDO – MDL 6039 SIKORSKY – SS-8689-001 SAAB – STD 161456	ARIANE Group - DSN 0277 AIRBUS Helicopter - ECS 7009 SAFRAN - DMR 75-210 FOKKER – TH 5.730 PRATT & WHITNEY – CPW787 DASSAULT DGQT 1.7.0.0194* (*under qualification)	HMRC0048 - Legacy Hurel-Hispano (SAFRAN) Specification. ASNA 4189 - Legacy Airbus specification	MOD Legacy product qualified to DTD 900/4488. Now sold under PPG standard TS003 as listed in AIRBUS process specification ABP 4-5144. The ABP 4-5144 lists AIMS 04-05-005 for CA1000 and CA1000V as preferred alternative materials.	MOD Legacy product qualified to DTD 900/4549. Now sold under PPG Standard (PPG-DTD 900/4549)
<b>Shelf Life</b>	Minimum 12 months When stored below 27°C in unopened Semco® cartridges	Minimum 12 months When stored below 27°C in unopened Semco® cartridges	Minimum 12 months When stored below 27°C in unopened Semco® cartridges	Minimum 12 months When stored below 27°C in unopened containers.	Minimum 24 months When stored between 5 and 35°C in unopened containers.
<b>Packaging</b>	Semco® 130ml cartridges And 55ml Syringes	Semco® 160ml cartridges 5ml Syringes and 160ml Jar	Semco® 160ml cartridges	Semco® 160ml cartridges	250ml cans
<b>Qualified PPG sites</b>	CA1000 PPG Mojave CA1000V PPG Shildon	PPG Shildon	PPG Gontreville	PPG Shildon	PPG Shildon