

DRYWASH



USER GUIDE



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Technical Data Sheet

Drywash Fast Active

Product information

A waterless, environmentally responsible exterior cleaner which can be used anywhere without the need for valeting/cleaning equipment or premises.

Removes even the heaviest dirt and grime. It leaves not only a shiny finish, but also a temporary invisible coating which will protect paintwork between cleans.

Drywash Fast Active is the rapid solution for cleaning any hard surface without the need for water. Ideal for use on Aircraft, Ground Vehicles, Trains and Yachts.

Drywash Fast Active can be shipped, stored and used without the requirement for any specialist measures and does not require the applicator to wear any specialist PPE over and above the standard industry requirements.

Key Features

- Tested and approved to Boeing and Airbus standards
- Tested and approved by PPG
- Unique advanced polymer formulation with no caustic content or solvents
- Oil and water repellent coating
- VOC content < 0.05%

Key Benefits

- Fast and simple to use
- Non-Hazardous
- It both cleans and enhances gloss level
- It both cleans and leaves a protective coating in a single application
- Can be used in adverse environments such as hot, cold, wet, salt & sand

Additional information

Simple application: spray a fine mist over the surface, leave to work for 20-30 seconds, wipe clean with a microfibre cloth and then buff over to leave a shiny finish.



RMX DRYWASH

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 12/12/2019 Revision date: 7/21/2022 Supersedes version of: 4/28/2022 Version: 5.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : RMX DRYWASH
Product code : 8301

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

RMX Global Ltd
Humberside International Airport
DN39 6YH Kirmington – North Lincolnshire
United Kingdom
T +44 (0)1472 563933
info@rmx-global.com - <https://www.rmx-global.com/>

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

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SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center or a doctor if you feel unwell. |

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

5.2. Special hazards arising from the substance or mixture

| | |
|--|--------------------------------|
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
|--|--------------------------------|

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|----------------------------|
| Emergency procedures | : Ventilate spillage area. |
|----------------------|----------------------------|

6.1.2. For emergency responders

| | |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Ensure good ventilation of the work station. Wear personal protective equipment. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

No additional information available

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|----------------------|
| Physical state | : Liquid |
| Colour | : white. |
| Odour | : No data available |
| Odour threshold | : No data available |
| pH | : 7 – 8 |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available. |
| Freezing point | : No data available |
| Boiling point | : 100 °C |

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| | |
|---|----------------------|
| Flash point | : > 60 °C |
| Auto-ignition temperature | : No data available. |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available. |
| Relative density | : 0.999 – 1 |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

| | |
|-------------|------------|
| VOC content | : < 0.05 % |
|-------------|------------|

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| | |
|-----------------------------------|-------------------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |
| Skin corrosion/irritation | : Not classified pH: 7 – 8 |
| Serious eye damage/irritation | : Not classified pH: 7 – 8 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Not rapidly degradable

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|---|---------------|---------------|---------------|---------------|
| 14.1. UN number | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.2. UN proper shipping name | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | | |

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14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list $\geq 0,1$ % / SCL

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content : < 0.05 %

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-----|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |

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| Abbreviations and acronyms: | |
|-----------------------------|--|
| COD | Chemical oxygen demand (COD) |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| ThOD | Theoretical oxygen demand (ThOD) |
| TLM | Median Tolerance Limit |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| vPvB | Very Persistent and Very Bioaccumulative |
| ED | Endocrine disrupting properties |

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Export Tariff Code

| Product | E.U. | U.S. |
|---------|------------|------------|
| Drywash | 3402.90.90 | 3405.30.00 |

Shipping Parameters

Shipping and Storage Temperatures: for all products: up to +40C (100F).

Do not allow to freeze.

| Unit Size | No per box | Size of Box LxWxH | Weight of box |
|---------------|------------|-----------------------|---------------|
| 5L Container | 4 | 300mm x 300mm x 390mm | 21kg |
| 20L Container | NA | NA | 21kg |
| 25L Container | NA | NA | 26kg |
| 1000L IBC | NA | NA | NA |

| Unit Size | Boxes / containers per pallet | Pallet LxWxH | Pallet Weight |
|---------------|-------------------------------|------------------|---------------|
| 5L Container | 154* | 1.2 x 1.0 x 2.2 | 1700kg** |
| 20L Container | 32 | 1.2 x 1.0 x 1.1 | 660kg |
| 25L Container | 32 | 1.2 x 1.0 x 1.1 | 820kg |
| 1000L IBC | NA | 1.2 x 1.0 x 1.16 | 1030kg |

| Unit Size | No of Pallets per 20ft shipping container | Weight of full shipping container |
|---------------|---|-----------------------------------|
| 5L Container | 9 | 15300kg |
| 20L Container | 18 (double stacked) | 12,500kg |
| 25L Container | 18 (double stacked) | 15300kg |
| 1000L IBC | 18 double stacked | 18450kg |

| Unit Size | No of Pallets per 40ft shipping container | Weight of full shipping container |
|---------------|---|-----------------------------------|
| 5L Container | 20 | 25500kg (weight limited) |
| 20L Container | 30 (some double stacked) | 20,200 kg |
| 25L Container | 30 (some double stacked) | 25500kg (weight limited) |
| 1000L IBC | 24 (some double stacked) | 24720kg (weight limited) |

* 5L boxes will be 22 to a layer, 7 layers high on a pallet for a container. There will be board between layers 4 & 5 for stability

** 7 layers is fine for height but there may be an issue on weight for some forklift trucks. On a 40ft container load is spread across 20 pallets meaning there would be 2300 boxes across 20 pallets at 5.1 layers per pallet

Storage and Bottling Information

Product name: Drywash
Date of issue: 20/04/2016
Revision number: 1

*****Always refer to the product MSDS prior to storage or use*****

Storage method: Within non-transparent, PET type plastic containers
Storage conditions: Indoor, dry environment, out of direct sunlight
Storage temperature window: 5°C - 40°C
Storage period: Sealed IBC shipping containers - 6 months
Sealed PET plastic bottles or containers - 18 months

Note: Drywash should only be stored in a sealed condition and where a trigger spray is to be added, this should only be applied immediately prior to use

Note: Always minimise the time the fluid is open to the atmosphere during fluid transfer and where possible avoid aeration at the filling point

General

Regular cleaning is an integral part of a corrosion prevention and control program. The frequency of cleaning and related treatment will depend on the type of aircraft, operating conditions and environment. It is recommended that aircraft are fully cleaned every 100 days with partial cleaning carried out in between as necessary. (See NOTE).

Cleaning Procedure

ONLY USE micro-fibre cloths or micro-fibre mop heads, regularly changing them to avoid an accumulation of dirt. Micro-fibre cloths and micro-fibre mop heads can be washed and reused. Micro-fibre cloths and micro-fibre mop heads ensure that all dirt is captured in the material itself, resulting in no contamination of the local environment. It is essential to regularly change the cloth to ensure consistent results across the aircraft.

- Use appropriate low pressure spray equipment for the size of application.
- DO NOT AEROSOLISE.

Typical examples of appropriate spray equipment



1.5-2.0L handheld -
small application



8L over-shoulder -
medium application



16L backpack -
large application

NOTE

Take care when operating around the aircraft not to cause any damage. If any damage has occurred or is found, report it immediately to a supervisor or maintenance personnel.

- A.** Prepare the aircraft for cleaning by following the appropriate procedures in the aircraft maintenance manual.



- B.** Fit all pitot probe covers and static port blanks.

WARNING

FLUIDS ENTERING THE PITOT/STATIC SYSTEM CAN HAVE SERIOUS EFFECTS ON AIRCRAFT SYSTEMS.

- C.** Fit engine blanks if available.



NOTE

It is not necessary to fit landing gear covers or close all doors as no residue or overspray is generated.

NOTE

RMX Drywash should be used to clean aircraft surfaces such as Fuselage, Wings, Engine cowlings, horizontal and vertical Stabilisers, Cabin Windows. There is no risk of scratching when using the product as per the application instructions.

- D. Spray a fine mist onto the surface being cleaned.

*For outdoor use, see Appendix A



NOTE

Work on manageable areas at a time to guard against the fluid fully evaporating. Suggested working area is up to 2m by 2m.

- E. Allow to soak for 15-20 seconds (do not allow to dry completely).



NOTE

For normal dirt removal, go straight to step **G**. For ingrained dirt include step **F** in the process.

- F. For deep ingrained dirt removal, it is possible to use a non-abrasive wash pad to first agitate and loosen the dirt prior to removal.

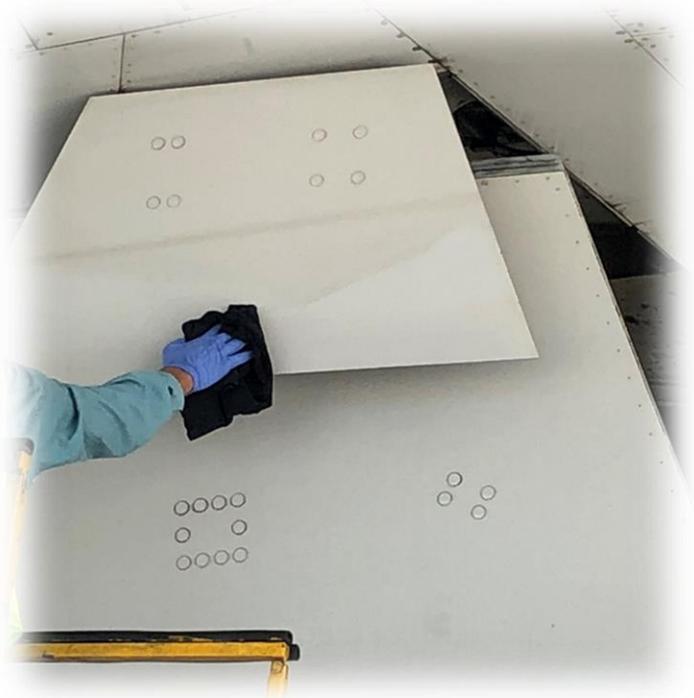
*See Appendix B



- G.** Wipe off using a micro-fibre cloth or micro-fibre mop head.



- H.** Gently buff using a clean, dry micro-fibre cloth or micro-fibre mop head.



NOTE

Steps **D.** to **H.** may be repeated if required

- I. Ensure all cleaning equipment is removed from the aircraft.
- J. Remove all pitot probe covers and static port blanks.
- K. Remove engine blanks if fitted.
- L. Restore aircraft to normal configuration I.A.W the procedures in the aircraft maintenance manual.

Please contact:

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Appendix A: When using outdoor

When working outdoor, make the following adjustments to the standard application procedure as necessary in order to maintain the best results.

Windy conditions

To minimise dissipation and remove the risk of accidental spraying of co-workers, do the following:

- Adjust the spray nozzles from “fine mist” to larger liquid droplets
- Move the spray bottle closer to the surface
- Spray smaller areas at a time

High temperatures

To use RMX Drywash in high temperatures and direct sunlight, do the following:

- Adjust the spray nozzles from “fine mist” to larger liquid droplets
- Spray a larger amount of liquid on each area than usual, but not so much that you create “run-off”
- Only leave the liquid on the surface for 10 seconds before using the micro-fibre cloths or non-abrasive pads

Nb. Where the product has dried before removal, just re-spray a small amount to re-wet and lubricate the area prior to use of the micro-fibre cloths or non-abrasive pads.

Rain

It is possible to clean aircraft in light drizzle, but the aircraft should not be cleaned during heavy rain. In light rain or drizzle, do the following:

- Adjust the spray nozzles from “fine mist” to larger liquid droplets
- Move the spray bottle closer to the surface
- Replace micro-fibre cloths more frequently than usual and as necessary

Appendix B: Stubborn stains

Nb. RMX should always be used as a regular cleaner to prevent build up of Ingrained staining rather than a sporadic deep cleaning product since it does not contain the hazardous/harmful solvents and acids required to strip back this type of soiling.

Where the aircraft has been left for a long period of time between cleans or where RMX is being used for the first time, ingrained staining may have occurred on some of the higher degradation areas of the aircraft. For these areas, it may be required to make some alterations to the standard application instructions as set out below.

1. Identify areas with ingrained staining
2. Spray RMX Drywash over these areas
3. Leave the liquid on the surface for as long as practical *minimum – 10 mins*
4. Return to the area and re-spray RMX Drywash over the area to lubricate
5. Use a non-abrasive pad to scrub the area until the staining is removed
6. Use a clean micro-fibre towel to remove the dirt from the surface
7. Use a second clean micro-fibre towel to buff the surface to a shiny finish

Once RMX has been used and our protective hydrophobic coating is on the surface the staining doesn't return quickly and when it does, is far faster and easier to remove as it is on top of our coating rather than penetrating the paint.

Regular use of RMX Drywash, especially on high degradation areas of the aircraft will not only provide a better cosmetic appearance of the aircraft exterior, but will make cleaning faster and more efficient and help to protect paint from some contaminants.

Appendix C: Technical wash – Landing Gear

Whilst RMX Drywash Fast Active is inert in nature and therefore will not harm any surfaces it is applied to, when carrying out technical cleaning of the landing gear, extra care should be taken when spraying to make sure to avoid spraying on sensitive areas such as inside brake friction areas and electronic units.

In order to work in the safest and most efficient way possible, it is important to make some small changes to the Drywash process when working in these areas.

1. Use a hand-held , small spray bottle to give a higher degree of spray accuracy
2. Identify sensitive areas that should be avoided when spraying and aim away from these areas
3. Spray smaller amounts and hold the bottle much closer to the target surface
4. Make sure low pressure spraying is used to minimise splashback
5. Use a clean micro-fibre towel to remove the dirt from the surface
6. Where required, use a second clean micro-fibre towel to buff the surface to a shiny finish

For ingrained dirt in these areas which is difficult to remove, refer to Appendix B “Stubborn Stains” and follow the process set out.

HYDRAULIC FLUIDS can be removed by following the process in Appendix B “Stubborn Stains” for pre-spraying and the use of non-abrasive pads.

Please note: Repeated use of RMX Drywash Fast Active in these areas will build up the RMX signature protective coating and thus reduce over time the build up of hydraulic fluids and other difficult to remove contaminants

NOTE:

Where RMX Drywash has been accidentally sprayed onto sensitive areas of the aircraft, please remove immediately by wiping the surface with a clean micro-fibre cloth until it is fully dry. There is no need to use water, sanitising products or any other substances to remedy this situation.

For further information or guidance call RMX info desk on: 0044 1472 563933

SMI, Inc.

12219 SW 131 Avenue
Miami, Florida 33186-6401 USA

Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Michael Drayton
RMX-Global Ltd
Cleethorpes Business Centre
Humbertson
North East Lincolnshire
DN36 4AS United Kingdom

Date: 14-NOV-2014

SMI/REF: 1410-189_{R2}
Report revised for product/Co. name change

Product: **RMX DRYWASH** (received 16-Oct-2014)

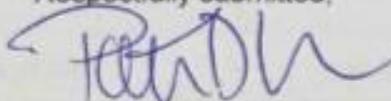
Dilution: As received

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British Aerospace
AIRBUS AIMS09-00-002 (Issue 3, July 2011)
EVALUATION OF MAINTENANCE MATERIALS
Exterior and General Cleaners

| | |
|-----------------------------------|-----------------|
| 5.3.1 Sandwich Corrosion Test | <u>Conforms</u> |
| 5.3.2 Total Immersion Test | <u>Conforms</u> |
| 5.3.3 Hydrogen Embrittlement Test | <u>Conforms</u> |
| 5.3.4 Paint Softening Test | <u>Conforms</u> |
| 5.3.5 Acrylic Crazeing Test | <u>Conforms</u> |
| 5.3.6 Polycarbonate Crazeing Test | <u>Conforms</u> |

Respectfully submitted,



Patricia D. Viani, SMI Inc.

Client: RMX-Global Ltd
 Product: **RMX DRYWASH**
 Dilution: As received
 AIMS 09-00-002 (Issue 3)

Date: 14-Nov-2014
 SMI/REF: 1410-189_{R2}
 Report revised for product/Co. name change
 Page 2 of 4

5.3.1 Sandwich Corrosion Test: Testing shall be in accordance with ASTM-F-1110 using:

- aluminium alloy 2024 T3 clad against
- anodised aluminium alloy 2024 T3 unclad and
- anodised aluminium alloy 7075 T6 unclad.

After the test the aluminium alloy specimens shall show a rating less than or equal to 1 or no worse than a control sample prepared with distilled water.

| | Aluminium alloy 2024 T3 clad against Anodised alum. 2024 T3 unclad | Aluminium alloy 2024 T3 clad against Anodised alum. 7075 T6 unclad |
|--------------------|---|---|
| AS RECEIVED | 2024 T3 clad: 1 2024 T3 unclad anodised: 1 | 2024 T3 clad: 1 7075 T6 unclad anodised: 1 |
| CONTROL | 2024 T3 clad: 1 2024 T3 unclad anodised: 1 | 2024 T3 clad: 1 7075 T6 unclad anodised: 1 |

Result Conforms

5.3.2 Total Immersion Test: Testing shall be in accordance with ASTM-F-483 using:

- aluminium alloys as per 5.3.1, above
- low carbon steel, e.g. AMS 5045, XC18 or equivalent
- cadmium plated steel, e.g. AMS 5045, XC18 (or equivalent), plated in accordance with AMS QQ-P-416 Type I Class 1 (or equivalent)

The immersion time shall be (24 ± 0.5) h. The immersion temperature shall be $(23 \pm 2)^{\circ}\text{C}$.

No significant visual change shall be evident. The max. permitted weight changes are as follows:

- Aluminum alloy = **0.02 mg/cm²** maximum.
- Low carbon steel = **0.8 mg/cm²** maximum
- Cadmium plated steel = **0.3 mg/cm²** maximum

| ALLOY | WEIGHT CHANGE |
|---|-----------------------------------|
| | AS RECEIVED |
| Aluminum alloy 2024-T3 clad | + 0.02 mg/cm ² /24 hrs |
| Anodized aluminum alloy 2024-T3 unclad | + 0.01 mg/cm ² /24 hrs |
| Anodized aluminum alloy 7075-T6 unclad | + 0.02 mg/cm ² /24 hrs |
| Low carbon steel AMS 5045 | 0.04 mg/cm ² /24 hrs |
| Cadmium plated steel AMS 5045 plated i.a.w. AMS-QQ-P-416 Type I Class 1 | 0.01 mg/cm ² /24 hrs |

Result Conforms

Client: RMX-Global Ltd
 Product: **RMX DRYWASH**
 Dilution: As received
 AIMS 09-00-002 (Issue 3)

Date: 14-Nov-2014
 SMI/REF: 1410-189_{R2}
 Report revised for product/Co. name change
 Page 4 of 4

5.3.4 Paint Softening Test: continued

| Paint System | | Weight required to produce scratch | |
|--------------------|--|------------------------------------|----------------|
| | | Before exposure | After exposure |
| AS RECEIVED | Epoxy Primer without topcoat: Primer: MIL-PRF-23377 Type I, Epoxy, High Solids | Pass* | Pass* |
| | Epoxy primer with polyurethane topcoat: Primer : MIL-PRF-23377 Type I, Epoxy, High Solids Topcoat: MIL-PRF-85285 Type I, Polyurethane, High solids | Pass* | Pass* |

* Using a 2,000 gram load (maximum load of the scratch apparatus)
 *Conformance ("Pass") if no scratch occurs using a load equal to or greater than 1,800 grams (90% of 2,000 = 1,800), and there is no evidence of blistering, discoloration or staining.

Result *Conforms

55.3.5 Acrylic Crazeing Test: Material conforming to MIL-P-25690 Type C shall be tested in accordance with ASTM-F-484. The maintenance materials shall not craze, crack, stain or discolor the test specimens.

As received: No evidence of craze, crack, stain or discolor.

Result Conforms

5.3.6 Polycarbonate Crazeing Test: Material conforming to ASTM-D-3935 or AMS-P-83310 shall be tested in accordance with the method for the determination of stress crazeing detailed in ASTM F 484.

Specimens shall be stressed for (30 ± 2) minutes to an outer stress of 21MPa (3000 psi) at a temperature of (23 ± 2)°C.

As received: No evidence of craze, crack, stain or discolor.

Result Conforms

SMI, Inc.

12219 SW 131 Avenue
Miami, Florida 33186-6401 USA

Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Michael Drayton
RMX Global Ltd
F25, Europarc Innovation Center
Innovation Way, Grimsby
North East Lincolnshire DN37 9TT
United Kingdom

Date: 22-Feb-2023

SMI/REF: 2211-852

Product: **DRYWASH FAST ACTIVE** (received 28-Nov-2022)

Dilution: As received

Page 1 of 4

BOEING SPECIFICATION SUPPORT STANDARD

BSS7432

EVALUATION OF AIRPLANE MAINTENANCE MATERIALS

(Version: Original issue, 28-May-2019 / supersedes Boeing D6-17487)

(Note: Boeing D6-17487 was cancelled and superseded by BSS7432 on 28-May-2019)

Category: Exterior and General Cleaners and Liquid Waxes, Polishes and Polishing Compounds

Sandwich Corrosion Test

Conforms

Acrylic Crazing Test

Conforms

Paint Softening Test

Conforms

Hydrogen Embrittlement Test

Conforms

Respectfully submitted,

Jeff Nottebaum
Director, SMI Inc.

Rae-anne Nottebaum
Chemist, SMI Inc.

Client: RMX Global Ltd
Product: **DRYWASH FAST ACTIVE**
Dilution: As received
BSS7432 (*Exterior & General*)

Date: 22-Feb-2023
SMI/REF: 2211-852

Page 2 of 4

Sandwich Corrosion Test: Specimen preparation, testing, and interpretation must be in accordance with ASTM F1110 using the following materials and with the following exceptions:

a. Reagents and materials exception:

- (1). Clad 7075-T6 aluminum alloy in accordance with AMS-QQ-A-250/13 (AMS 4049 or AMS-QQ-A-250/13 optional) (2024-T3 Alclad specimens are neither required nor optional.)
- (2) Bare 7075-T6 aluminum alloy in accordance with AMS-QQ-A-250/12 (AMS 4045 or AMS-Q-A-250/12 optional) anodized in accordance with BAC 5019 or MIL-A-8625, Type I.
- (3) Anodize must be sealed. (2024-T3 nonclad specimens are neither required nor optional).
- (4) Distilled or deionized water may be used in place of ASTM F1193, Type IV reagent grade water for control specimens.
- (5) The filter paper may be Whatman No. 5 or equivalent in place of Whatman GFA glass fiber paper.

b. Procedure exceptions:

- (1) The filter paper strips must be 1 by 3 inches and must be placed in the center of the sandwiched specimens.
- (2) Each sandwich specimen must be held together with waterproof tape, with no more than 1 piece of tape (maximum width 0.75 inch) on each of two opposite edges.

c. Interpretation of result exceptions:

- (1) Leaching or lightening of the chromate sealed anodize coating must not be cause for rejection.
- (2) Deposits or residues from the material being tested that are not products of corrosion of the test panel surface must not be cause for rejection.
- (3) Special procedure for evaluation of fire extinguishing foams and liquids. Panels with very light darkening or staining, which have no obvious metal attack or pitting, may be swabbed (cotton-tipped swabs or cotton gauze) with a 0.26 mole/liter sulfuric acid solution and re-examined. If the coloration is substantially removed and there is no evidence of metal attack or pitting, the condition must not be cause for rejection. (The 0.26 mole/liter sulfuric acid solution can be prepared by adding 1.5 cc of concentrated sulfuric acid (SG = 1.84) to 100 cc of distilled or deionized water.
- (4) Panels must have a rating of 1 (no more than 5 percent of the surface area must be corroded) or better in accordance with ASTM F 1110. The preferred method of determining the corroded area is by using image analysis. Other means approved by the purchaser may be substituted.
- (5) Any corrosion in excess of that shown by the control group must be cause for rejection.

Client: RMX Global Ltd
Product: **DRYWASH FAST ACTIVE**
Dilution: As received
BSS7432 (*Exterior & General*)

Date: 22-Feb-2023
SMI/REF: 2211-852

Page 3 of 4

Sandwich Corrosion Test: continued

| | Bare 7075-T6 (AMS 4045) Anodized per BAC 5019 (Type 3 chromate seal) | Clad 7075-T6 Aluminum (AMS 4049) |
|----------------|--|-------------------------------------|
| PRODUCT | 1 | 1 |
| Control | 1 | 1 |

Result Conforms

Acrylic Crazeing Test:

The material being tested must not craze, crack, or etch acrylic test specimens when tested in accordance with ASTM F 484 using Type C (stretched acrylic plastic in accordance with MIL-P-25690) stressed to an outer fiber stress of 4500 psi.

PRODUCT: No crazing, cracking, or etching

Result Conforms

Paint Softening Test Procedure:

- a. Testing must be in accordance with ASTM F502 using the following coating systems.
- (1) BMS 10-79, Type II primer applied in accordance with BAC5882 plus BMS 10-60, Type II enamel in accordance with BAC5845.
 - (2) BMS 10-79, Type III primer applied in accordance with BAC5882, plus BMS 10-100 coating in accordance with BAC5797.
- b. Three specimens conforming to Section 7.7.a.(1) and three specimens conforming to Section 7.7.a.(2) must be used for each test condition.
- c. The material being tested must not produce a decrease in film hardness greater than two pencils, or any discoloration or staining.
- NOTE: Slight darkening of the BMS 10-100 surface is acceptable.

**As received: Paint system 1: 0 pencil hardness change after 24 hour post-exposure dry time.
No staining / discoloration**
**Paint system2: 0 pencil hardness change after 24 hour post-exposure dry time.
No staining / discoloration**

Result Conforms

Client: RMX Global Ltd
Product: **DRYWASH FAST ACTIVE**
Dilution: As received
BSS7432 (*Exterior & General*)

Date: 22-Feb-2023
SMI/REF: 2211-852

Page 4 of 4

Hydrogen Embrittlement Test:

Hydrogen Embrittlement testing must be in accordance with ASTM F 519 using cadmium plated Type 1a.2, Type 1c, or Type 2a specimens. All requirements of ASTM F519 for specimens, preparation, testing, and reporting must apply. Type 1a.2 specimens must meet the requirements of D6-4307.

Specimens: Type 1c, cadmium plated per MIL-STD-870.

(45% load, 150 hours, notched immersed for the duration, room temp.)

As received:

- #1: No failure occurred within 150 hours.***
- #2: No failure occurred within 150 hours.***
- #3: No failure occurred within 150 hours.***
- #4: No failure occurred within 150 hours.***

Result Conforms

SMI, Inc.

12219 SW 131 Avenue
Miami, Florida 33186-6401 USA

Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Michael Drayton
RMX-Global Ltd
Cleethorpes Business Centre
Humbertson
North East Lincolnshire
DN36 4AS United Kingdom

Date: 14-Nov-2014

SMI/REF: 1410-189_{R2}
Report revised for product/Co. name change

Product: **RMX DRYWASH** (received 16-Oct-2014)

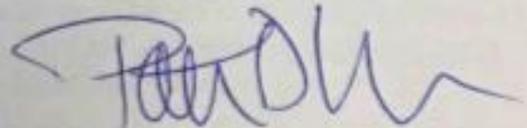
Dilution: As received

Page 1 of 4

BOEING D6-17487 REVISION T
*Exterior and General Cleaners and Liquid Waxes,
Polishes and Polishing Compounds*

| | |
|-----------------------------|-----------------|
| Sandwich Corrosion Test | <u>Conforms</u> |
| Acrylic Crazing Test | <u>Conforms</u> |
| Paint Softening Test | <u>Conforms</u> |
| Hydrogen Embrittlement Test | <u>Conforms</u> |

Respectfully submitted,



Patricia D. Viani, SMI, Inc.

Client: RMX-Global Ltd
Product: **RMX DRYWASH**
Dilution: As received

Date: 14-Nov-2014
SMI/REF: 1410-189_{R2}
Report revised for product / Co. name change

BOEING D6-17487 REVISION T (Exterior & General)

Page 2 of 4

Sandwich Corrosion Test: Specimen preparation, testing, and interpretation shall be in accordance with ASTM F1110 using the following materials and with the following exceptions:

a. Reagents and materials exception:

- (1). Clad 7075-T6 aluminum alloy in accordance with QQ-A-250/13 (AMS 4049 or AMS-QQ-A-250/13 optional) (2024-T3 Alclad specimens are neither required nor optional.)
- (2) Bare 7075-T6 aluminum alloy in accordance with QQ-A-250/12 (AMS 4045 or AMS-Q-A-250/12 optional) anodized in accordance with BAC 5019 or MIL-A-8625, Type I.
- (3) Anodize shall be sealed. (2024-T3 nonclad specimens are neither required nor optional).
- (4) Distilled or deionized water may be used in place of ASTM F1193, Type IV reagent grade water for control specimens.
- (5) The filter paper may be Whatman No. 5 or equivalent in place of Whatman GFA glass fiber paper.

b. Procedure exceptions:

- (1) The filter paper strips shall be 1 by 3 inches and shall be placed in the center of the sandwiched specimens.
- (2) Each sandwich specimen shall be held together with waterproof tape, with no more than 1 piece of tape (maximum width 0.75 inch) on each of two opposite edges.

c. Interpretation of result exceptions:

- (1) Leaching or lightening of the chromate sealed anodize coating shall not be cause for rejection.
- (2) Deposits or residues from the material being tested that are not products of corrosion of the test panel surface shall not be cause for rejection.
- (3) Special procedure for evaluation of fire extinguishing foams and liquids.

Panels with very light darkening or staining, which have no obvious metal attack or pitting, may be swabbed (cotton-tipped swabs or cotton gauze) with a 0.26 mole/liter sulfuric acid solution and re-examined. If the coloration is substantially removed and there is no evidence of metal attack or pitting, the condition shall not be cause for rejection. (The 0.26 mole/liter sulfuric acid solution can be prepared by adding 1.5 cc of concentrated sulfuric acid (SG = 1.84) to 100 cc of distilled or deionized water.

- (4) Panels shall have a rating of 1 (no more than 5 percent of the surface area shall be corroded) or better in accordance with ASTM F 1110. The preferred method of determining the corroded area is by using image analysis. Other means approved by the purchaser may be substituted.
- (5) Any corrosion in excess of that shown by the control group shall be cause for rejection.

Client: RMX-Global Ltd
 Product: **RMX DRYWASH**
 Dilution: As received
 BOEING D6-17487 REVISION T (*Exterior & General*)

Date: 14-Nov-2014
 SMI/REF: 1410-189_{R2}
 Report revised for product / Co. name change
 Page 3 of 4

Sandwich Corrosion Test: continued

| | Bare 7075-T6 (AMS 4045) Anodized per BAC 5019 (Type 3 chromate seal) | Clad 7075-T6 Aluminum (AMS 4049) |
|----------------|--|-------------------------------------|
| PRODUCT | 1 | 1 |
| Control | 1 | 1 |

Result Conforms

Acrylic Crazeing Test:

The material being tested shall not craze, crack, or etch acrylic test specimens when tested in accordance with ASTM F 484 using Type C (stretched acrylic plastic in accordance with MIL-P-25690) stressed to an outer fiber stress of 4500 psi.

Type C (MIL-P-25690): No crazing, cracking, or etching

Result Conforms

Paint Softening Test Procedure:

- a. Testing shall be in accordance with ASTM F502 using the following coating systems.
 - (1) BMS 10-79, Type II primer applied in accordance with BAC5882 plus BMS 10-60, Type II enamel in accordance with BAC5845.
 - (2) BMS 10-79, Type III primer applied in accordance with BAC5882, plus BMS 10-100 coating in accordance with BAC5797.
- b. Three specimens conforming to Section 12a.(1) and three specimens conforming to Section 12a(2) shall be used for each test condition.
- c. The material being tested shall not produce a decrease in film hardness greater than two pencils, or any discoloration or staining.

NOTE: Slight darkening of the BMS 10-100 surface is acceptable.

As received:

**Paint system 1: 0 pencil hardness change after 24 hour post-exposure dry time.
No discoloration or staining.**

**Paint system 2: 0 pencil hardness change after 24 hour post-exposure dry time.
No discoloration or staining.**

Result Conforms

Client: RMX-Global Ltd
Product: **RMX DRYWASH**
Dilution: As received

Date: 14-Nov-2014
SMI/REF: 1410-189_{R2}
Report revised for product/Co. name change

BOEING D6-17487 REVISION T (Exterior & General)

Page 4 of 4

Hydrogen Embrittlement Test:

Hydrogen Embrittlement testing shall be in accordance with ASTM F 519 using cadmium plated Type 1a.2, Type 1c, or Type 2a specimens. All requirements of ASTM F519 for specimens, preparation, testing, and reporting shall apply. Type 1a.2 specimens shall meet the requirements of D6-4307.

Specimens: Type 1c, cadmium plated per MIL-STD-870.

(45% load, 150 hours, notched immersed for the duration, room temp.)

As received:

- #1: No failure occurred within 150 hours.***
- #2: No failure occurred within 150 hours.***
- #3: No failure occurred within 150 hours.***
- #4: No failure occurred within 150 hours.***

Result Conforms

SMI, Inc.

12219 SW 131 Avenue
Miami, Florida 33186-6401 USA

Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Michael Drayton
RMX Global Ltd
F25, Europarc Innovation Center
Innovation Way, Grimsby
North East Lincolnshire DN37 9TT
United Kingdom

Date: 22-Feb-2023
SMI/REF: 2211-852

Product: **DRYWASH FAST ACTIVE** (received 28-Nov-2022)

Dilution: As received

Page 1 of 4

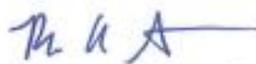
AMS 1530C
Cleaner for Aircraft Exterior Surfaces
Wipe-On, Wipe-Off

| | | |
|---------|-------------------------------|----------------------|
| 3.2.1.1 | Sandwich Corrosion | <u>Conforms</u> |
| 3.2.1.2 | Total Immersion Corrosion | <u>Conforms</u> |
| 3.2.1.3 | Low-Embrittling Cadmium Plate | <u>Conforms</u> |
| 3.2.2 | Hydrogen Embrittlement | <u>Conforms</u> |
| 3.2.3 | Flash Point | <u>Conforms</u> |
| 3.2.4 | Effect on Plastics | <u>Conforms</u> |
| 3.2.5 | Effect on Painted Surfaces | <u>Conforms</u> |
| 3.2.6 | Effect on Unpainted Surfaces | <u>Conforms</u> |
| 3.2.7 | Abrasive Effects | <u>Conforms</u> |
| 3.2.8 | Storage Stability | <u>Not performed</u> |

Respectfully submitted,



Jeff Nottebaum
Director, SMI Inc.



Rae-anne Nottebaum
Chemist, SMI Inc.

Client: RMX Global Ltd
Product: **DRYWASH FAST ACTIVE**
Dilution: As received
AMS 1530C

Date: 22-Feb-2023
SMI/REF: 2211-852

Page 2 of 4

3.2.1.1 Sandwich Corrosion. Specimens, after test, shall show a rating not worse than 1 determined in accordance with ASTM F 1110.

Note: Panels were rated as follows:

- 0 - No visible corrosion
- 1 - Very slight corrosion or discoloration (up to 5% of surface area corroded).
- 2 - Slight corrosion (5 to 15%)
- 3 - Moderate corrosion (10 to 25%)
- 4 - Extensive corrosion or pitting (25% or more)

TEST RESULTS:

| | 2024-T3 Bare Anodized | 2024-T3 Alclad | 7075-T6 Bare Anodized | 7075-T6 Alclad |
|----------------|-----------------------|----------------|-----------------------|----------------|
| Control | 1 | 1 | 1 | 1 |
| PRODUCT | 1 | 1 | 1 | 1 |

Result Conforms

3.2.1.2 Total Immersion Corrosion. The product shall neither show evidence of corrosion of the panels nor cause a weight change of any test panel greater than the following, determined in accordance with ASTM F 483:

| Panel | Wgt change (max) mg/cm ² /24hrs | RESULTS (mg/cm ² /24hrs) |
|---|--|-------------------------------------|
| AMS 4049 Aluminum Alloy | 0.3 | + 0.01 |
| AMS 4376 Magnesium Alloy, dichromate per AMS 2475 | 0.2 | 0.07 |
| AMS 4911 Titanium Alloy | 0.1 | 0.02 |
| AMS 5045 Carbon Steel | 0.8 | < 0.01 |

“+” indicates weight gain

Result Conforms

Client: RMX Global Ltd
Product: **DRYWASH FAST ACTIVE**
Dilution: As received
AMS 1530C

Date: 22-Feb-2023
SMI/REF: 2211-852

Page 3 of 4

3.2.1.3 Low-Embrittlement Cadmium Plate. Panels coated with low-embrittling cadmium plate shall not show a weight change greater than 0.3 mg/cm² per 24 hours, determined in accordance with ASTM F 1111.

PRODUCT: As received: 0.06 mg/cm²/24 hours

Result Conforms

3.2.2 Hydrogen Embrittlement: The product shall be non-embrittling, determined in accordance with ASTM F 519, utilizing Type 1a, 1c, or 2a specimens, cadmium plated in accordance with MIL-STD-870, Class 1, Type I. Type 1a and 1c specimens shall be loaded to 45% of the predetermined notch fracture strength, and Type 2a specimens loaded to 80% of the yield strength. The entire 2a stressed specimen, or just the notched area of the 1a and 1c stressed specimen, shall be immersed continuously in the solution under test for 150 hours at a temperature between 20-30 °C (68-86 °F).

PRODUCT: No failures within 150 hours

Result Conforms

3.2.3 Flash Point. The flash point shall not be lower than 60°C (140°F), determined in accordance with ASTM D 56.

PRODUCT: No flash observed to 141°F

Result Conforms

3.2.4 Effect on Plastics. There shall not craze, stain, or discolor MIL-P-25690 stretched plastic, determined in accordance with ASTM F 484.

PRODUCT: No craze, stain, or discolor after exposure

Result Conforms

3.2.5 Effect on Painted Surfaces. The product shall neither decrease the hardness of the paint film by more than 2 pencil hardness levels nor shall it produce any streaking, discoloration or blistering of the paint film, determined in accordance with ASTM F 502.

PRODUCT: No hardness change; no discoloration of paint film

Result Conforms

Client: RMX Global Ltd
Product: **DRYWASH FAST ACTIVE**
Dilution: As received
AMS 1530C

Date: 22-Feb-2023
SMI/REF: 2211-852

Page 4 of 4

3.2.6 Effect on Unpainted Surfaces. The product, tested in accordance with ASTM F 485, shall neither produce streaking nor leave any stains requiring polishing to remove.

***PRODUCT: AMS 4049 - No streaking nor stains
AMS 4911 - No streaking nor stains***

Result Conforms

3.2.7 Abrasive Effects. The cleaner shall not scratch glass, paint or aluminum alloy surfaces, determined in accordance with ASTM D 1404 except that the test specimens shall be glass, AMS 4049 aluminum alloy, and AMS 4049 aluminum alloy coated with MIL-C-23377 epoxy primer and MIL-PRF-85285 polyurethane coating. The cleaner shall be applied to the specimens in the as-received concentration form. Only arc-type scratches greater than 1/16 inch (1.6 mm) from the edge of any specimen shall be considered.

PRODUCT: No scratching of glass, aluminum, or painted aluminum

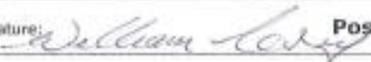
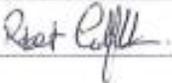
Result Conforms

3.2.8 Storage Stability. The product tested in accordance with ASTM F 1104, shall be restorable to its original appearance by vigorous shaking and shall conform to all other technical requirements of this specification after the storage stability period.

Testing of Storage Stability requires 12 months of storage and is therefore not included in this report.

Result Not performed

MEQ4696

| | |
|--|--|
| Change Request | Aircraft Type(s): All |
| | Component: Aircraft Exterior Cleaner |
| | MEQ Details: Description of requirement: Client has requested introduction of a new Aircraft Exterior Cleaner |
| | Description of proposed deviation: Permit the use of RMX Global, Fastcare Complete Surface Protection |
| | Reason for deviation: New product already approved by other OEM. Acceptance reports for use on Airbus and Boeing relate to public standards. Reports Ref 1405-773a and 1405-773r show compliance with standards. |
| Originator: Rod Smith Dept: Support Tel: +44(0)1292675299 | |
| Application Date: 05/09/2016 | |
| Mat. Eng. Response | MEQ Response: Immediate action: Accept the client's proposal to permit the use of RMX Global, Fastcare Complete Surface Protection. |
| | Permanent action: RMX Global, Fastcare Complete Surface Protection may be used at any time for cleaning aircraft exterior surfaces. |
| | Changes described herein do not significantly affect Design, Airworthiness or Certification of the aircraft. (Score through if not applicable) |
| | Compiled by: Bill Carey; signature:  Position: Materials Engineer |
| Compile Date: 05/09/2016 | |
| Approval | Engineering Approval of MEQ Application & Response: The technical content of this document is approved under authority of DOA REF. EASA.213.047. (score through if not applicable) |
| | Approve by: Bob Gilfillan; signature:  Position: Chief Structures Engineer |
| | Approval Date: 05/09/2016 |

BOMBARDIER

Aerospace Quality Assurance

251-B Wille Rd
Des Plaines, IL - 60018

www.bombardier.com

September 01, 2021

RMX-Global LTD **147512**

Nightel, Shipol Way, Humberside
International Airport
Kirmington, NorthEast Lincolnshire
UK DN396YH
0044 1472563933

Subject: Supplier Approval Notification

On behalf of Bombardier Aerospace, thank you for the time and cooperation you offered during our review of your capabilities.

As such, this letter documents your approval as a supplier to Bombardier Maintenance, Repair, and Overhaul organizations - contingent upon your continued compliance to regulatory ratings, capability listings, quality system accreditations, and/or consistent conformity to our standard of quality and reliability. As an Approved Supplier, you are subject to follow-up surveillance by Bombardier Aerospace, its customers, and/or Regulatory Authorities at any time.

Our expectation is that the services you provide remain within the scope of your ratings and/or certifications, as applicable.

Please notify us at the address below of any significant changes to ownership, name, location, or capabilities. This approval is effective as of 31-Aug-2021 and shall remain in effect until rescinded and may not be used for advertising or marketing purposes.

Regards,



Sohini Mahapatra
Quality Assurance Analyst
Supplier Quality Management

251-B Wille Rd
Des Plaines, IL - 60018
224-315-8736

maintenance_sqm@aero.bombardier.com



SCIENCE & TECHNOLOGY SHILDON

LABORATORY REPORT

Title: Compatibility of Dry Wash Solution with Desothane 9008 Basecoat Clear Coat Scheme and Desothane 8000 Topcoat

Project No: GLP21237

Report No: LR16-2022

Date: 07/04/2022

Report Author: L. Costello

c.c. R. Brown

INTRODUCTION

Dry Wash Solution 'Fast Active'; was tested for its compatibility with PPG's Desothane 8000 Topcoat and Desothane 9008 Basecoat Clear Coat scheme. Testing was carried out to ensure the Dry Wash Solution has no detrimental effect on colour, gloss or appearance of the products.

SUMMARY

- The schemes tested comprised of:
 - CA7049 CF Primer / 9008 Basecoat (Red and white)/ 9008 Clear Coat
 - CA7049 Primer / CA8000 Topcoat (Red and white)
- The schemes were subjected to the following testing:
 - Initial adhesion and scratch resistance
 - Initial gloss and colour
 - Adhesion and scratch resistance after water immersion
 - Gloss and colour after QUV exposure
- The Dry Wash Solution was found to have zero to minimal effect on colour of the coating schemes.
- After cleaning with the Dry Wash Solution the gloss was found to increase.
- Scratch resistance and adhesion properties were maintained after initial application of the Dry Wash solution and again after water soak.
- Minimal change in gloss and colour were observed after exposure to QUV for 1000 hours.

CONCLUSION

The results obtained show that 'Fast Active' is a suitable Dry Wash solution for aircraft coated with Desothane 8000 and Desothane 9008 Basecoat Clear Coat scheme.



REPORT

Batch Numbers

The following batch numbers were used in the work programme and applied to the recommended film thicknesses:

Table 1: Batch Numbers and Dry Film Thickness

| | Base | Activator | Thinner | Mix Ratio (Vol) | Recommended DFT μm | Actual DFT μm |
|------------------------|--------------------|-----------------|---------------|-----------------|-------------------------------|--------------------------|
| CA7049 | 7049E03125 | CA7049B1 | 7049CX | 3.5:1:1 | 20-30 | 22-29 |
| Batch Number | GOC 120784 | SHC 181263 | SHC 180087 | | | |
| 9008 BC White | 9008B07067 | 9008B | 9008C2 | 4:1:1 | 30-70 | 54-61 |
| Batch Number | SHC 180493 | SHC 177448 | SHC 175624 | | | |
| 9008 BC Red | 9008C30005 | 9008B | 9008C2 | 4:1:1 | 30-70 | 58-63 |
| Batch Number | SHC 178901 | SHC 177448 | SHC 175624 | | | |
| 9008 Clear Coat | 9008B0900D | 9008B | 9008CR | 3:2:3 | 50-70 | 62-64 |
| Batch Number | GOC 109796 | SHC 177448 | SHC 176358 | | | |
| 8000 White | CA8000/B707 | 8000B | 8000C2 | 2:1:1 | 50-75 | 65-70 |
| Batch Number | T10034250 | SHC 175904 | SHC 178712 | | | |
| 8000 Red | 8000/B102 | 8000B | 8000C2 | 2:1:1 | 50-75 | 66-72 |
| Batch Number | T10034205 | SHC 175904 | SHC 178712 | | | |

Test Panels

Table 2: Test Panel Types

| Material | Preparation | Dimensions |
|----------|-------------|------------|
| Aluminum | 2024 clad | 100x50mm |

Application

Panels were degreased with cleaning solvent CN20 and Scotch Brite abraded before application. All panels were sprayed and dried in climate controlled spray booth set at 23°C & 55% RH and left to cure for 7 days before testing was carried out.



RESULTS

Table 3: Colour and Gloss, before and after QUV

| Basecoat Colour | Dry Wash Solution | DE After Dry Wash | Gloss at 60° | DE After 1000h QUV | Gloss at 60° After 1000h QUV |
|-----------------|----------------------|-------------------|--------------|--------------------|------------------------------|
| 9008B07067 | No Dry Wash | N/A | 93.8 | 0.32 | 93.1 |
| 9008C30005 | | N/A | 93.2 | 0.43 | 92.8 |
| 9008B07067 | Fast Active Dry Wash | 0.09 | 94.2 | 0.32 | 93.6 |
| 9008C30005 | | 0.05 | 93.8 | 0.36 | 93.2 |
| CA8000/B707 | No Dry Wash | N/A | 92.1 | 0.29 | 92.2 |
| 8000/B102 | | N/A | 92.5 | 0.21 | 92.1 |
| CA8000/B707 | Fast Active Dry Wash | 0.07 | 92.6 | 0.24 | 91.9 |
| 8000/B102 | | 0.07 | 92.8 | 0.25 | 91.5 |

Table 4: Mechanical Properties

| Basecoat Colour | Dry Wash Solution | Initial Scratch Resistance ISO 1518 | Scratch Resistance after 2 week Water Soak | Initial Cross Hatch Adhesion ISO2409 | Cross Hatch Adhesion after 2 week Water Soak |
|-----------------|----------------------|-------------------------------------|--|--------------------------------------|--|
| 9008B07067 | No Dry Wash | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |
| 9008C30005 | | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |
| 9008B07067 | Fast Active Dry Wash | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |
| 9008C30005 | | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |
| CA8000/B707 | No Dry Wash | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |
| 8000/B102 | | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |
| CA8000/B707 | Fast Active Dry Wash | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |
| 8000/B102 | | Pass at 2000g | Pass at 2000g | Pass at degree 0 | Pass at degree 0 |

Appendix A – Photographs

| 9008 White – Water Immersion | 9008 White – QUV |
|--|---|
|  |  |
| 9008 Red – Water Immersion | 9008 Red – QUV |
|  |  |

| 8000 White – Water Immersion | 8000 White – QUV |
|------------------------------|------------------|
| | |
| 8000 Red – Water Immersion | Red White – QUV |
| | |

APPROVALS

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Report Author
7th April 2022

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7th April 2022

IMPORTANT

The above performance data were obtained under laboratory test conditions and are given for guidance only. Given the number of potentially relevant variables, specific testing under actual conditions must be carried out in order to determine the suitability of the product for its intended purpose. All products supplied and technical advice given are subject to PPG Aerospace's standard terms of sale.

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