

# APPROVAL

It is hereby certified that the company

**ELEMENT MATERIALS TECHNOLOGY (5048640)**

**WILBUR Y ORVILLE WRIGHT, 1**

**41309 LA RINCONADA (SEVILLA) - SPAIN**

is qualified for following

## SPECIAL PROCESSES

- Content
- Flexure
- Peel
- Shear (organic)
- Shear tube
- Tensile (organic)
- DSC
- Climbing Drum Peel
- Expansion ratio
- Compression (organic)
- Others test method: Area mass

This qualification is granted under  
the conditions and restrictions defined in appendix 1

**Special Processes Management**

**AH Laboratory**

RECORD OF REVISIONS

| Issue | Modified by         | Description of Change / modified pages                                                                                                                                                                                                                                                                                                                                                                                                             | Date of change |
|-------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| -     | E. GEREONE<br>ETXLL | Qualification of the following special processes : <ul style="list-style-type: none"><li>- <u>Content</u></li><li>- <u>Flexure</u></li><li>- <u>Peel</u></li><li>- <u>Shear (organic)</u></li><li>- <u>Shear tube</u></li><li>- <u>Tensile (organic)</u></li><li>- <u>DSC</u></li><li>- <u>Climbing Drum Peel</u></li><li>- <u>Expansion ratio</u></li><li>- <u>Compression (organic)</u></li><li>- <u>Others test method: Area mass</u></li></ul> | 08.04.2025     |
|       |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |
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# APPENDIX 1

## SPECIAL PROCESS : CONTENT 1/2

### Performed in accordance with the following documents :

#### Other Documentation :

- EN2330 Aerospace series; textile glass fibre preimpregnates; test method for the determination of the content of volatile matter
- EN2331 Textile glass fibre preimpregnates. Test method for the determination of the resin and fibre content and mass of fibre per unit area
- EN2757 Solid content for bonding primer - Determination of the drying and ignition of primers
- EN2558 Aerospace series - Carbon fibre reinforced plastics - Determination of the volatile content
- EN2559 Carbon fibre preimpregnates. Determination of the resin and fibre content and the mass of fibre per unit area

#### Supplier Documentation :

- N/A

### With the following resources :

- N/A

### This Qualification is based on the following results :

- Qualification program ETXLL-SPV 2024 – 0797 iss A
- Assessment note ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis N/A
- Qualification audit report N/A
- Action plan N/A
- AH test report N/A
- Supplier test report N/A

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

SPECIAL PROCESS :          CONTENT 2/2

Performed in accordance with the following documents :

The Qualification is subject to the following specific conditions :

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

Restrictions :

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

**SPECIAL PROCESS : FLEXURE**

**Performed in accordance with the following documents :**

**Other Documentation :**

- EN2563 Carbon fibre reinforces plastics. unidirectional laminates. Determination of the apparent interlaminar shear strength
- ISO14130 Fibre-reinforced plastic composites. Determination of apparent interlaminar shear strength by short-beam method
- EN2562 Carbon fibre reinforced plastics. Unidirectional laminates. Flexural test parallel to the fibre direction
- ISO14125 Fibre-reinforced plastic composites — Determination of flexural properties (3 points bending)
- EN2377 Glass fibre reinforced plastics test method determination. Test method of apparent interlaminar shear strength

**Supplier Documentation :**

- N/A

**With the following resources :**

- N/A

**This Qualification is based on the following results :**

- Qualification program ETXLL-SPV 2024 – 0797 iss A
- Assessment note ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis N/A
- Qualification audit report N/A
- Action plan N/A
- AH test report N/A
- Supplier test report N/A

**The Qualification is subject to the following specific conditions :**

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

**Restrictions :**

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

**SPECIAL PROCESS : PEEL**

**Performed in accordance with the following documents :**

**Other Documentation :**

- EN2243-2 Non-metallic materials - Structural adhesives - Test method - Part 2 : Peel Metal-Metal

**AH Documentation :**

- EI071 IGC 04-26-360 Adhesives - Metal to metal Peel Tests (Floating Peeling)

**Supplier Documentation :**

- N/A

**With the following resources :**

- N/A

**This Qualification is based on the following results :**

- Qualification program ETXLL-SPV 2024 – 0797 iss A
- Assessment note ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis N/A
- Qualification audit report N/A
- Action plan N/A
- AH test report N/A
- Supplier test report N/A

**The Qualification is subject to the following specific conditions :**

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

**Restrictions :**

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

## SPECIAL PROCESS :        SHEAR (ORGANIC)

### Performed in accordance with the following documents :

#### Other Documentation :

- EN2243-1                      Non-metallic materials - Structural adhesives - Test method - Part 2 :  
Peel Metal-Metal

#### AH Documentation :

- EI071 IGC 04-26-345        Adhesives - Metal/Metal shear test

#### Supplier Documentation :

- N/A

### With the following resources :

- N/A

### This Qualification is based on the following results :

- Qualification program        ETXLL-SPV 2024 – 0797 iss A
- Assessment note              ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis      N/A
- Qualification audit report    N/A
- Action plan                    N/A
- AH test report                N/A
- Supplier test report          N/A

### The Qualification is subject to the following specific conditions :

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

### Restrictions :

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

## SPECIAL PROCESS : SHEAR TUBE

### Performed in accordance with the following documents :

#### Other Documentation :

- EN2667-2                      Foaming structural adhesives - Test methods - Part 2: Compressive tube shear

#### Supplier Documentation :

- PE 0529-0                      Aerospace series - Non-metallic materials - Foaming structural adhesives - Test methods - Part 2: Compressive tube shear
- TPS PT 2003                      Resistencia a Cortadura de Tubos de Espuma a Compresión

### With the following resources :

- N/A

### This Qualification is based on the following results :

- Qualification program              ETXLL-SPV 2024 – 0797 iss A
- Assessment note                      ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis              ETXLL-SPV 2025-0193 Ind 1
- Qualification audit report              25-AHE-00045206
- Action plan                              N/A (no finding)
- AH test report                              N/A
- Supplier test report                      N/A

### The Qualification is subject to the following specific conditions :

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

### Restrictions :

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

## SPECIAL PROCESS : TENSILE (ORGANIC)

### Performed in accordance with the following documents :

#### Other Documentation :

- ISO527-1                      Plastics. Determination of tensile properties. Part 1 : General principles
- ISO527-4                      Plastics. Determination of tensile properties. Part 4 : Test conditions for isotropic and orthotropic fibre-reinforced plastics composites
- ISO527-5                      Plastics. Determination of tensile properties. Part 5: Test conditions for unidirectional fibre-reinforced plastic composites
- EN2561                        Carbon fibre reinforced plastics. Unidirectional laminates. Tensile test parallel the fiber direction

#### Supplier Documentation :

- N/A

### With the following resources :

- N/A

### This Qualification is based on the following results :

- Qualification program        ETXLL-SPV 2024 – 0797 iss A
- Assessment note              ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis      N/A
- Qualification audit report    N/A
- Action plan                    N/A
- AH test report                N/A
- Supplier test report          N/A

### The Qualification is subject to the following specific conditions :

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

### Restrictions :

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

**SPECIAL PROCESS : DSC 1/2**

**Performed in accordance with the following documents :**

**Other Documentation :**

- EN6041 Aerospace series - Non-metallic materials - Test method - Analysis of non-metallic materials (uncured) by Differential Scanning Calorimetry (DSC)
- ISO11357-1 Plastics. Differential scanning calorimetry (DSC). Part 1: General principles
- ISO11357-2 Plastics. Differential scanning calorimetry (DSC). Part 2 : Determination of glass transition temperature and glass transition step height
- ISO11357-5 Plastics. Differential scanning calorimetry (DSC). Part 5 : Determination of characteristic reaction-curve temperatures and times, enthalpy of reaction and degree of conversion

**Supplier Documentation :**

- PE 009-1 Materiales no metálicos. Método de ensayo. Análisis de materiales no metálicos (sin curar) por calorímetro diferencial (DSC)
- PE 217-0 Calorimetría diferencial de barrido (DSC) - Parte 2: Determinación de la temperatura de transición vítrea y de la altura del escalón de transición vítrea

**With the following resources :**

- N/A

**This Qualification is based on the following results :**

- Qualification program ETXLL-SPV 2024 – 0797 iss A
- Assessment note ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis ETXLL-SPV 2025 – 0193 ind 1
- Qualification audit report N/A
- Action plan N/A
- AH test report COM-2023-9430 Kit 37-1-2023 (DSC)
- Supplier test report N/A

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

**SPECIAL PROCESS :** DSC 2/2

**Performed in accordance with the following documents :**

**The Qualification is subject to the following specific conditions :**

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

**Restrictions :**

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

## SPECIAL PROCESS : CLIMBING DRUM PEEL

### Performed in accordance with the following documents :

#### Other Documentation :

- EN2243-3 Non-metallic materials - Structural adhesives - Test method - Part 3 : Peeling test Metal-Honeycomb core

#### AH Documentation :

- EI071 IGC 04-26-270 Adhesives and sandwich laminates - Determination of peel strength - climbing drum peel

#### Supplier Documentation :

- PE 0537-0 Adhesives and sandwich laminates determination of peel strength climbing drum peel
- PE 0039-3 Materiales no metálicos. Adhesivos estructurales. Métodos de ensayo. Parte 3: ensayo de pelado metal-núcleo de nido de abeja

### With the following resources :

- N/A

### This Qualification is based on the following results :

- Qualification program ETXLL-SPV 2024 – 0797 iss A
- Assessment note ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis ETXLL-SPV 2025-0193 Ind 1
- Qualification audit report 25-AHE-00045206
- Action plan N/A (no finding)
- AH test report COM-2023-9430 Kit 34-1-2023 (CD Peel)
- Supplier test report N/A

### The Qualification is subject to the following specific conditions :

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

### Restrictions :

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.

# APPENDIX 1

## SPECIAL PROCESS : EXPANSION RATIO

### Performed in accordance with the following documents :

#### Other Documentation :

- EN2667-3 Foaming structural adhesive films - Test methods - Part 3:  
Expansion ratio and volatile content

#### AH Documentation :

- IGC 04-26-335 Intumescent adhesives - Determination of expansion rate

#### Supplier Documentation :

- PE 531-0 Aerospace series. Non-metallic materials. Foaming structural adhesive films Test methods Part 3 - Expansion ratio and volatile content.

### With the following resources :

- N/A

### This Qualification is based on the following results :

- Qualification program ETXLL-SPV 2024 – 0797 iss A
- Assessment note ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis ETXLL-SPV 2025-0193 Ind 1
- Qualification audit report 25-AHE-00045206
- Action plan N/A (no finding)
- AH test report N/A
- Supplier test report N/A

### The Qualification is subject to the following specific conditions :

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

### Restrictions :

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.



# APPENDIX 1

**SPECIAL PROCESS :**            **OTHERS TEST METHOD: AREA MASS**

**Performed in accordance with the following documents :**

**Other Documentation :**

- EN2329                      Aerospace series; textile glass fibre preimpregnates; test method for the determination of mass per unit area
- EN2557                      Aerospace series - Carbon fibre reinforced plastics - Determination of mass per unit area
- EN12127                     Aerospace series - Carbon fibre reinforced plastics - Determination of mass per unit area

**Supplier Documentation :**

- PE 0539-0                      Textiles - Fabrics - Determination of mass per unit area using small samples

**With the following resources :**

- N/A

**This Qualification is based on the following results :**

- Qualification program            ETXLL-SPV 2024 – 0797 iss A
- Assessment note                ETXLL-SPV 2024 – 0451 Issue A
- Documentation analysis        ETXLL-SPV 2025 – 0193 ind 1
- Qualification audit report      N/A
- Action plan                        N/A
- AH test report                    N/A
- Supplier test report              N/A

**The Qualification is subject to the following specific conditions :**

Safety class : N/A

Design applicability : AH/AHD according to EI021 HS5011.

**Restrictions :**

None

This qualification could be suspended or cancelled at any time in case of decrease in quality. All modifications initiated by supplier must be submitted to Airbus Helicopters for approval. In case of Airbus Helicopters documentation revision, modifications have to be implemented or request for deviation have to be submitted to Airbus Helicopters for approval.