

MATE -XT EXOSKELETON PROTECTION SOLUTION

GENERAL TECHNICAL DOCUMENTATION

CR82483101 - MATE XT COVER FOOD



The protective cover developed by ASP enables the COMAU MATE-XT exoskeleton to be used in food environments, while complying with the constraints and directives governing these environments.

The ASP cover prevents contamination of the Comau MATE-XT exoskeleton by the outside environment.

The ASP cover can be cleaned while protecting the Comau MATE-XT exoskeleton.



Table of contents

Product presentation..... 3

 Components..... 3

 Fabric data sheets..... 4

 TEXPRAL B+ 4

 T1A..... 5

 Cover dimensions..... 6

 Large dimensions measured on inspection 6

 Additional dimensions 7

Food industry certifications..... 8

Product references..... 8

Operating conditions 11

Cleaning conditions 11

Packaging and recycling 11

Storage conditions..... 12

 Before use..... 12

 After use..... 12

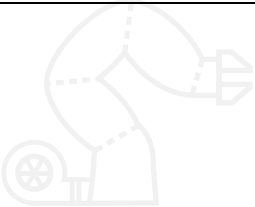
APPENDICES: Certificates of conformity 13

 Appendix 1: TEXPRAL B+ certificate of conformity 14

 Appendix 2: T1A certificate of conformity 17

 Appendix 3: Zipper certificate of conformity 20

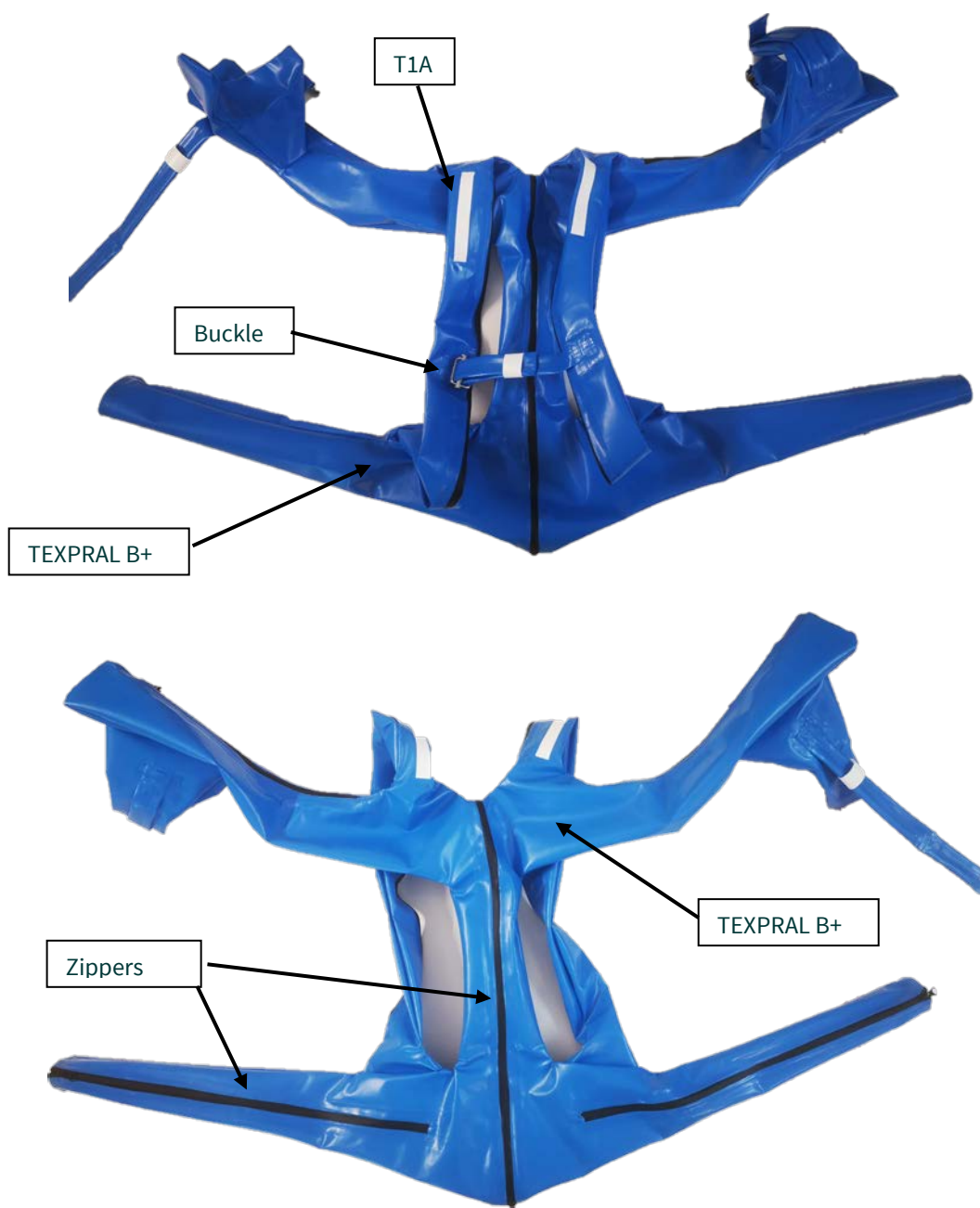
Version	Month / Year	Description
01	10/2023	Initial version - creation
02	02/2024	Addition of tolerances on page 6 - modification of dimension K02 - addition of numbers to supplementary dimensions
03	04/2024	Length D1 from 350mm to 400mm
04	10/2024	Addition of an internal strap for attachment to the arm frame



Product presentation

The protective cover is specially designed to enable the MATE-XT exoskeleton to be used in a food processing environment, while guaranteeing its functionality. The cover is made from TEXPRAL B+ fabric and features 7 openings via black waterproof zippers. 304 stainless steel buckles and TEXPRAL B+ straps tighten the cover.

Components



Fabric data sheets

TEXPRAL B+



Version 1.02

Date 28.05.21

TEXPRAL B+ | Polyamid texture two sides coated with a thermoplastic Blue colour on external side

Weight	ISO 2286-2	450 g/m ² ± 75
Tensile strength	ISO 1421	
Warp		> 300 daN/5cm
Weft		> 300 daN/5cm
Tear resistance	ISO 1421	
Warp		> 100 daN
Weft		> 100 daN
Peeling Test Adhesion	ISO 2411	
Warp		> 15 daN/5cm
Weft		> 15 daN/5cm
Overall migration test	NF EN 1186 parts 1 to 14 Regulation EC n°1935/2004 Regulation EC n°10/2011	Accordance TESTS REPORT N°E21-04879 - IANESCO

Food contact approval certification for TEXPRAL B+

The producer certifies that the product contains monomers and starting substances meeting EC regulation 10/2011 of 14 January 2011.

TPU polymer-Commission Regulation (EU) No. 10/2011, Regulation No. 1935/2004 and Regulation No.2023/2006

TPU resin is composed of ingredients which meet the current requirements of Commission Regulation (EU) No.10/2011. All the monomers and additives are listed in the Annex of Regulation (EC) No. 2023/2006.

Produced under good manufacturing practices as per Regulation (EC) No 2023/2006, the quality management system ensures the traceability required by Article 17 of Regulation (EC) No. 1935/2004.

The masterbatch Anti-UV meet the current requirements of Commission Regulation (EU) No. 10/2011.

The material is in accordance with Overall migration test.

Standard NF EN 1186, parts 1 to 14

Regulation (EC) n°1935/2004 of October 27, 2004

Modified Regulation (EU) n°10/2011 of January 14, 2011

DGCCRF notices concerning the materials intended to come into contact with food

Test report N°E21-04879 - 19/03/2021

In the conditions indicated in the above table.

The overall migration of this material is within the limit set by regulation in the simulant A, B of modified regulation n°10/2011.

The overall migration of this material EXCEEDS the limit set by regulation in the simulant D2 of modified regulation n°10/2011. Nevertheless by taking into account the reduction factor recommended by modified regulation 10/2011, the obtained values are in compliance with regulatory limits for a contact with fatty foods for which a reduction factor at least equal to 3, is planned.

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0.020 - With concern for continuous improvement of our products, the information, descriptions and technical characteristics contained in the present catalog are subject to modification without prior notice.

T1A



Version | 05

Date | 17.10.16

T1A | Technical white rubber TPE

thickness 1 mm

Surfacic Mass	NFT 54 101	1 100 g/m ² ± 65
Thickness	NFT 54 101	1 mm ± 0.05
Tensile Strength	ISO 527-3	
Weft		≈ 35 MPa
Wrap		≈ 35 MPa
Elongation at break	ISO 527-3	
Weft		≈ 450 %
Wrap		≈ 450 %
Modulus at 100 % elongation	ISO 527-3	
Weft		≈ 3 MPa
Wrap		≈ 3 MPa
Low Temperature Resistance	ISO 4675	< -50°C
Hardness	ISO 7619-1	85 Sh A ± 5
Overall migration test	NF EN 1186 parts 1,4,5 Regulation EC n°1935/2004 Regulation EC n°10/2011	OK for the simulants A – B OK with a factor at least equal to 3 for Fatty Foods

0316 - With concern for continuous improvement of our products, the informations, descriptions and technical characteristics contained in the present catalog are subject to modification without prior notice

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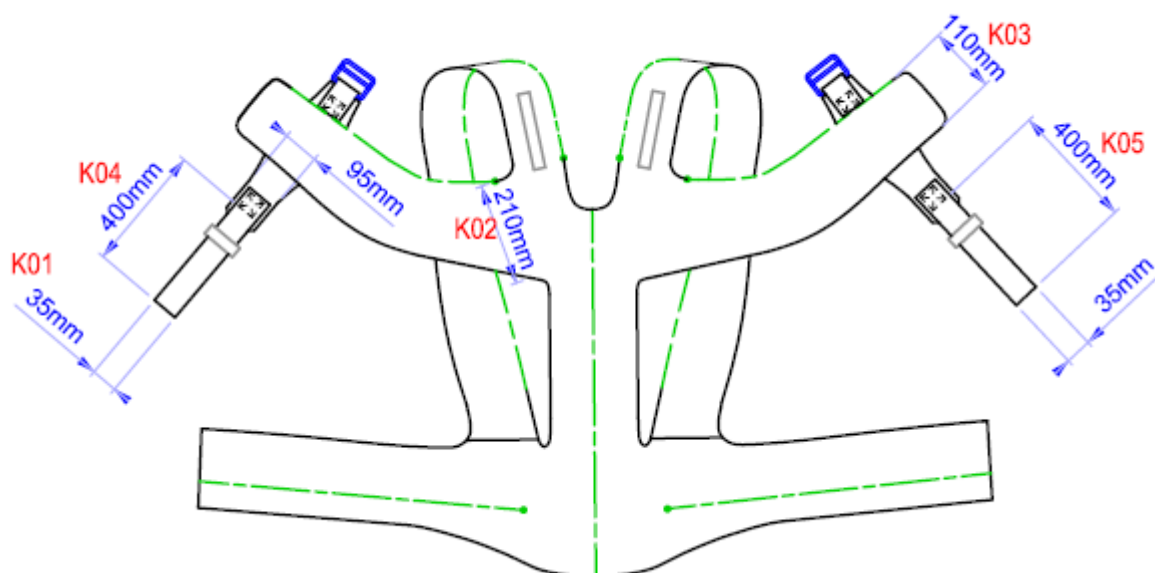


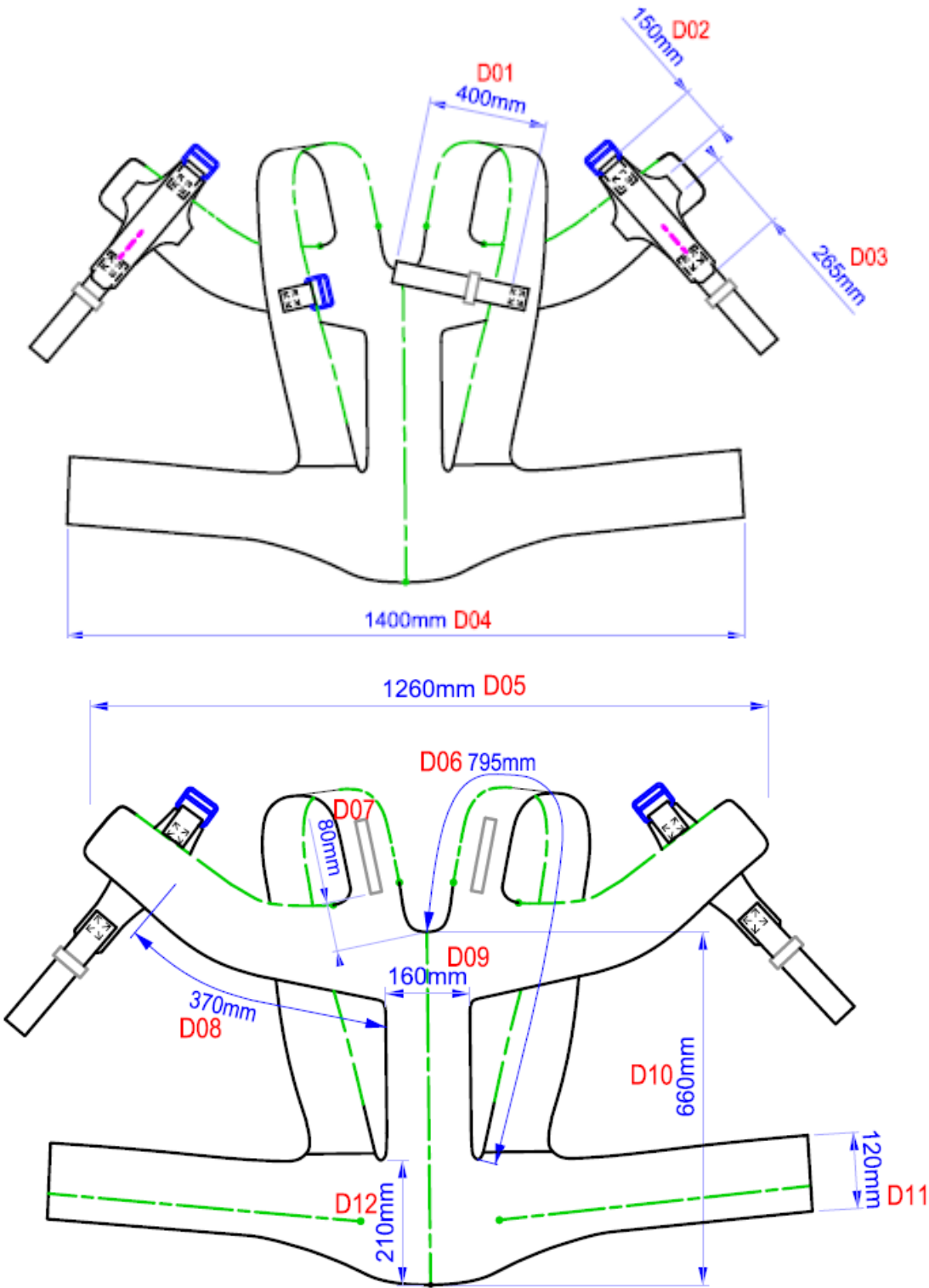
Cover dimensions

Tolerances:

- Measure $\leq 50\text{mm}$ $\rightarrow \pm 5\text{mm}$
- Measure > 50 and $\leq 200 \rightarrow \pm 10\text{mm}$
- Measure > 200 and $\leq 500 \rightarrow \pm 25\text{mm}$
- Measure $> 500 \rightarrow \pm 50\text{mm}$

Large dimensions measured on inspection





Food industry certifications

✓ TEXPRAL B+, T1A and the watertight seal have been tested by the French laboratory IANESCO for :
Testing the inertness of a material intended to come into contact with food. Global migration test.

✓ TEXPRAL B+ has been tested by the Swiss laboratory MEDISTRI for :
Food contact migration tests

- ✓ TEXPRAL B+: the supplier certifies that all monomers are:
- **In accordance with Regulation (EU) no. 10/2011 of January 14, 2021, as amended**
 - **- FDA-compliant**

- ✓ The buckle is made of stainless steel 304 (A2) - X5CrNi18.10 or 1.4301

It therefore complies with:

Order of January 13, 1976

Regulation 1935/2004/CE of 27/10/04 (modified)

French standard NFA 36-711 of April 2002

Product references

Traceability label on the inside of the bag:

The diagram shows a traceability label with the following fields and callouts:

- ASP bag serial no.**: Points to the ASP logo.
- Reference ASP**: Points to the F 54690 EULMONT text.
- Designation**: Points to the Article : ASPD1VEXOMXTTX text.
- Customer reference**: Points to the Ref client : CR82483101 text.
- Traceability no.**: Points to the 00 33 (0)3 83 22 88 55 text.
- Date of manufacture**: Points to the Date : 28/09/2023 text.

Other text on the label includes: Made in France, Num Serie : 2023-05002, Cde : 12231290, EXOSQUELETTE COMAU MATE XT, and a disclaimer: L'absence de cette étiquette dégage ASP de toute responsabilité sur ce produit.





Version 04

Of 09/10/24

Etiquette sachet

General technical documentation

Protection for the food industry

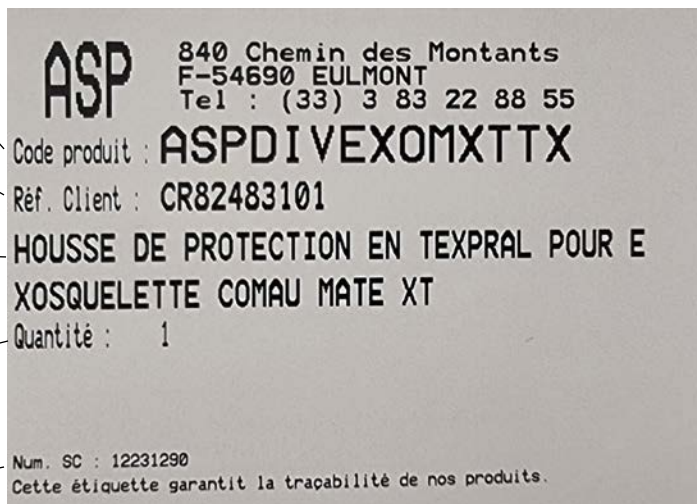
Reference ASP

Customer reference

Designation

Quantity in bag

Traceability no.



General technical documentation
Protection for the food industry



- 1 Central zipper
- 2 Left belt zipper
- 3 Right belt zipper
- 4 Left strap zipper
- 5 Right strap zipper
- 6 Left-hand assistance box zipper
- 7 Right-hand assistance box zipper



Assembly instructions are written on the inside of the cover.

LH BOTTOM BACK	RH BOTTOM BACK	RH UP BACK	LH UP BACK	RH SCHOULDER STRAP	LH SCHOULDER STRAP
LH : Left Hand	RH : Right Hand	RH : Right Hand	LH : Left Hand	RH : Right Hand	LH : Left Hand
2	3	7	6	5	4



Operating conditions

- The exoskeleton protective cover can be used under the following conditions:
- - Temperature: -18°C / + 40°C (0°F / 104°C)
- - Humidity: 0% / 100%

Cleaning conditions

It is not necessary to remove the exoskeleton when cleaning the cover.

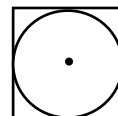
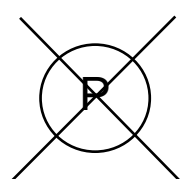
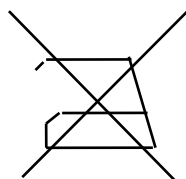
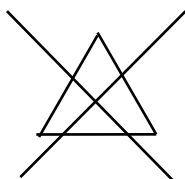
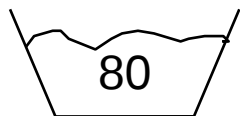
The cover can be cleaned with soapy water or with a product compatible with the process cleaning instructions.

However, to avoid premature deterioration of the cover, it is imperative to inform ASP of the references and safety data sheets of the products used, so that compatibility can be validated.

The maximum cleaning temperature is 80°C.

Rinse cover thoroughly with clean water after cleaning.

Once the exoskeleton has been disassembled, the protective cover can be cleaned in a washing machine using standard detergent.



DO NOT:

- Do not use sharp or scratching tools on the surface of the cover to remove certain encrusted elements. Use a simple sponge.
- Do not use abrasive sponges.

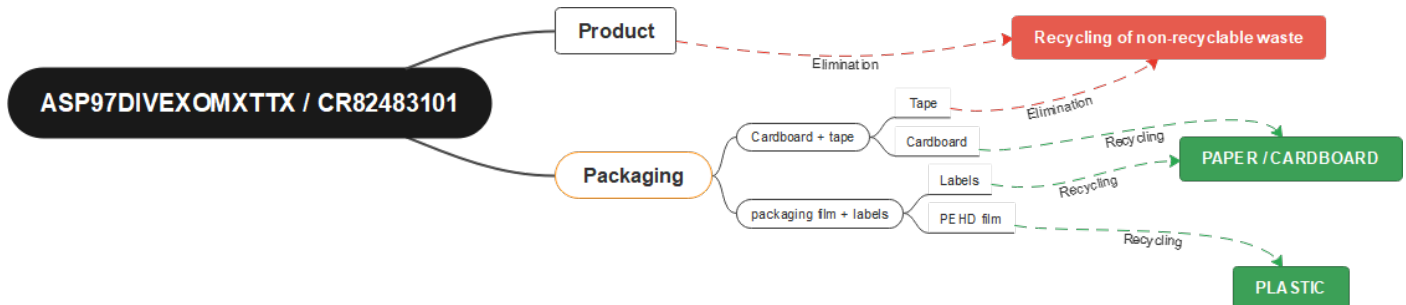
Packaging and recycling

Packaging

The protective cover is vacuum-packed in an HDPE bag.



Packaging recovery



Storage conditions

Before use

Storage room: The room where the product is stored must be cool, dry, dust-free and ventilated.

Temperature: The temperature should be as stable as possible, preferably between 10 and 25°C.

Relative humidity: Relative humidity should be between 40 and 70%.

Light: Articles should be stored in a dark place and protected from sunlight and any intense artificial light (UV and IR).

Ozone: The storage area must not contain any installations that produce ozone, e.g. mercury vapour lamps or tubes, high-voltage electrical equipment, electric motors, etc.

Environment: Solvents, fuels and chemicals must not be stored in the same room as the covers.

Storage methods: The covers must be stored in their original plastic packaging and must be arranged without constraint.

After use

The cover should be stored in a dry, ventilated place, preferably attached to a rack like the exoskeleton. It is not necessary to remove the cover from the exoskeleton after use.



APPENDICES: Certificates of conformity



Appendix 1: TEXPRAL B+ certificate of conformity



DECLARATION OF COMPLIANCE WITH FOOD CONTACT LEGISLATION

1. Identity and address of the business operator issuing the declaration of compliance

Company Name and Address: ADVANCED SYSTEMS OF PROTECTION (ASP)

840 chemin des Montants

FR- 54690 EULMONT

Name Mrs: Stéphanie GIERENS

Position: Quality / Innovation Manager

2. Identity of the material and / or item covered by this declaration

Trade name and reference : **TEXPRAL B+**

Description Polyamid texture two sides coated with a thermoplastic blue colour on external side

Indicate the component material(s) of the item:

Internal component: polyamide fabric

Food contact component: blue thermoplastic

Statement issued on: September 19th, 2023

3. Confirmation that those materials or items meet the relevant requirements of Food contact regulations

The materials and/or items covered by this DoC comply with the relevant requirements laid down in Framework Regulation (EC) N° 1935/2004/EC, Regulation (EC) N°2023/2006 and other European and national texts applicable, listed below:

Quote the relevant text(s):

Norme NF EN1186, parties 1 à 14

Règlement (UE) n°10/2011 du 14 janvier 2011, modifié

Fiches DGCCRF relatives aux matériaux destinés au contact alimentaire

Swiss Regulation on Food Contact Materials (CH/EU) of 16.12.2016, updated 01.12.2020

CH BedGeg VO SR 817.023.21

Particularities (to be completed as of publication of the list) ☒ Not applicable

☐ (EC)Regulation N° 450/2009 on active and intelligent materials and items intended to come into contact with food, specify the substance used and the number mentioned in the Community list:

.....
.....



General technical documentation

Protection for the food industry

☐ (EC) Regulation N° 282/2008 on recycled plastic materials and items intended to come into contact with foods, specify the type of material and the authorization number of the recycling process, mentioned in the EC process register:

.....

.....

This declaration of compliance has been established in respect of the following (tick any appropriate boxes)

☒ Declarations by suppliers of raw materials

☒ Overall Migration testing - If applicable, please complete the table:

Tests report IANESCO (France) n°E21-04879 du 19/03/23

Tests report MEDISTRI (Switzerland) n°2203605, 2203606 et 2300509 de novembre 2022 à january 2023

Simulants	Time	Temperature
Simulant A	10 days	40°C
Simulant B	10 days	40°C
Simulant D2 (Olive oil)	10 days	40°C
Simulant E	10 days	40°C

☐ Assessment of non-listed substances - Article 6 of (EU) Regulation N° 10/2011 ☒ Not applicable

☐ Risk assessment (article 19 of (EU) Regulation N° 10/2011)

☐ If not, list substances and information relevant to the risk assessment

☐ Assessment of non-intentionally added substances:

☒ Not applicable

☐ Risk assessment (article 19 of (EU) Regulation N° 10/2011)

☐ If not, list substances and information relevant to the risk assessment

4. Information related to the intended use of the materials or items

Materials or items intended for infants and young children ☐ Yes ☒ No

Type of food intended to be placed in contact:

☐ All types of food products

or only

☒ Dry and assimilated foods

☐ Alcoholic foods

☒ Moist / aqueous foods

☒ Frozen and deep-frozen products

☒ Acidic foods

☐ Ice creams

☒ Fatty foods:

If the material and / or item subject to (EU) Regulation N° 10/2011 is concerned by the application of a reduction factor, this should be mentioned:

☐ Reduction factor due to fat content



General technical documentation

Protection for the food industry

☒ Reduction factor related to D2 simulant :: 3

☐ Others (please specify)

.....

Contact conditions (time and temperatures) corresponding to the input data

 Specify.....

.....

5.

Functional barrier (FB) in the case of multilayer materials
☐ Not applicable

Or tick the corresponding box if the materials meet the requirements provided when using a FB:

☐ Multi-layer plastics (Article 13 (2), (3) and (4) of (EU) Regulation N° 10/2011)

☒ Multi-layer materials (Article 14 (2), (3) and (3) of (EU) Regulation N°10/2011)

☐ The material covered by this declaration is to be used only behind a functional barrier

This declaration is valid on condition that there is no modification of material composition, that its intended use has not changed and in the absence of regulatory changes.

Compliance is understood to be subject to compliance with the conditions of storage, handling and use, taking into account the specific characteristics of the material or item, and the conditions such as prescribed by professional practices or codes.

In the event of changes to the nature of the packaged product, its composition or its intended use, as well as in the event of a change in the conditions for using the material or the item, the person for whom this declaration is intended must ensure the compatibility packaging / content for which s/he then accepts responsibility.

Signed in Eulmont September 19th, 2023

(Company stamp and signature)



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Appendix 2: T1A certificate of conformity



DECLARATION OF COMPLIANCE WITH FOOD CONTACT LEGISLATION

1. Identity and address of the business operator issuing the declaration of compliance

Company Name and Address: ADVANCED SYSTEMS OF PROTECTION (ASP)

840 chemin des Montants

FR- 54690 EULMONT

Name Mrs: Stéphanie GIERENS

Position: Quality / Innovation Manager

2. Identity of the material and / or item covered by this declaration

Trade name and reference : **T1A**

Description Technical white thermoplastic rubber thickness 1mm

Indicate the component material(s) of the item:

Internal component: technical white thermoplastic rubber

Food contact component: technical white thermoplastic rubber

Statement issued on: September 19th, 2023

3. Confirmation that those materials or items meet the relevant requirements of Food contact regulations

The materials and/or items covered by this DoC comply with the relevant requirements laid down in Framework Regulation (EC) N° 1935/2004/EC, Regulation (EC) N°2023/2006 and other European and national texts applicable, listed below:

Quote the relevant text(s):

Norme NF EN1186, parties 1 à 14

Règlement (UE) n°10/2011 du 14 janvier 2011, modifié

Fiches DGCCRF relatives aux matériaux destinés au contact alimentaire

Particularities (to be completed as of publication of the list) ☒ Not applicable

☐ (EC)Regulation N° 450/2009 on active and intelligent materials and items intended to come into contact with food, specify the substance used and the number mentioned in the Community list:

.....
.....



General technical documentation

Protection for the food industry

☐ (EC) Regulation N° 282/2008 on recycled plastic materials and items intended to come into contact with foods, specify the type of material and the authorization number of the recycling process, mentioned in the EC process register:

.....

This declaration of compliance has been established in respect of the following (tick any appropriate boxes)

☐ Declarations by suppliers of raw materials

☒ Overall Migration testing - If applicable, please complete the table:

Tests report IANESCO (France) n°RE16/08913 du 1^{er} june 2016

Simulants	Time	Temperature
Simulant A	10 days	40°C
Simulant B	10 days	40°C
Simulant D2 (Vegetable oil)	10 days	40°C

☐ Assessment of non-listed substances - Article 6 of (EU) Regulation N° 10/2011 ☒ Not applicable

☐ Risk assessment (article 19 of (EU) Regulation N° 10/2011)

☐ If not, list substances and information relevant to the risk assessment

☐ Assessment of non-intentionally added substances:

☒ Not applicable

☐ Risk assessment (article 19 of (EU) Regulation N° 10/2011)

☐ If not, list substances and information relevant to the risk assessment

4. Information related to the intended use of the materials or items

Materials or items intended for infants and young children ☐ Yes ☒ No

Type of food intended to be placed in contact:

☐ All types of food products

or only

☐ Dry and assimilated foods

☐ Alcoholic foods

☒ Moist / aqueous foods

☒ Frozen and deep-frozen products

☒ Acidic foods

☐ Ice creams

☒ Fatty foods:

If the material and / or item subject to (EU) Regulation N° 10/2011 is concerned by the application of a reduction factor, this should be mentioned:

☐ Reduction factor due to fat content

☒ Reduction factor related to D2 simulant :: 3

☐ Others (please specify)



General technical documentation

Protection for the food industry

Contact conditions (time and temperatures) corresponding to the input data

Specify.....

5.

Functional barrier (FB) in the case of multilayer materials

☒ Not applicable

Or tick the corresponding box if the materials meet the requirements provided when using a FB:

- ☐ Multi-layer plastics (Article 13 (2), (3) and (4) of (EU) Regulation N° 10/2011)
- ☐ Multi-layer materials (Article 14 (2), (3) and (3) of (EU) Regulation N°10/2011)
- ☐ The material covered by this declaration is to be used only behind a functional barrier

This declaration is valid on condition that there is no modification of material composition, that its intended use has not changed and in the absence of regulatory changes.

Compliance is understood to be subject to compliance with the conditions of storage, handling and use, taking into account the specific characteristics of the material or item, and the conditions such as prescribed by professional practices or codes.

In the event of changes to the nature of the packaged product, its composition or its intended use, as well as in the event of a change in the conditions for using the material or the item, the person for whom this declaration is intended must ensure the compatibility packaging / content for which s/he then accepts responsibility.

Signed in Eulmont September 19th, 2023

(Company stamp and signature)




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Appendix 3: Zipper certificate of conformity



DECLARATION OF COMPLIANCE WITH FOOD CONTACT LEGISLATION

1. Identity and address of the business operator issuing the declaration of compliance

Company Name and Address: ADVANCED SYSTEMS OF PROTECTION (ASP)

840 chemin des Montants

FR- 54690 EULMONT

Name Mrs: Stéphanie GIERENS

Position: Quality / Innovation Manager

2. Identity of the material and / or item covered by this declaration

Trade name and reference : **Waterproof zipper**

Description waterproof zipper black colour

Indicate the component material(s) of the item:

Internal component: tape

Food contact component: all zipper components

Statement issued on: September 19th, 2023

3. Confirmation that those materials or items meet the relevant requirements of Food contact regulations

The materials and/or items covered by this DoC comply with the relevant requirements laid down in Framework Regulation (EC) N° 1935/2004/EC, Regulation (EC) N°2023/2006 and other European and national texts applicable, listed below:

Quote the relevant text(s):

Norme NF EN1186, parties 1 à 14

Règlement (UE) n°10/2011 du 14 janvier 2011, modifié

Fiches DGCCRF relatives aux matériaux destinés au contact alimentaire

Particularities (to be completed as of publication of the list) ☒ Not applicable

☐ (EC)Regulation N° 450/2009 on active and intelligent materials and items intended to come into contact with food, specify the substance used and the number mentioned in the Community list:

.....
.....



General technical documentation

Protection for the food industry

☐ (EC) Regulation N° 282/2008 on recycled plastic materials and items intended to come into contact with foods, specify the type of material and the authorization number of the recycling process, mentioned in the EC process register:

This declaration of compliance has been established in respect of the following (tick any appropriate boxes)

☐ Declarations by suppliers of raw materials

☒ Overall Migration testing - If applicable, please complete the table:

Tests report IANESCO (France) n°RE16/08913 du 1^{er} juny 2016

Simulants	Time	Temperature
Simulant A	30 mn	40°C
Simulant B	30 mn	40°C
Simulant D2 (Ethanol 95%)	30 mn	40°C
Simulant D2 (Isooctane)	30 mn	40°C

☐ Assessment of non-listed substances - Article 6 of (EU) Regulation N° 10/2011 ☒ Not applicable

☐ Risk assessment (article 19 of (EU) Regulation N° 10/2011)

☐ If not, list substances and information relevant to the risk assessment

☐ Assessment of non-intentionally added substances:

☒ Not applicable

☐ Risk assessment (article 19 of (EU) Regulation N° 10/2011)

☐ If not, list substances and information relevant to the risk assessment

4. Information related to the intended use of the materials or items

Materials or items intended for infants and young children ☐ Yes ☒ No

Type of food intended to be placed in contact:

☐ All types of food products

or only

☐ Dry and assimilated foods

☐ Alcoholic foods

☒ Moist / aqueous foods

☒ Frozen and deep-frozen products

☒ Acidic foods

☐ Ice creams

☒ Fatty foods:

If the material and / or item subject to (EU) Regulation N° 10/2011 is concerned by the application of a reduction factor, this should be mentioned:

☐ Reduction factor due to fat content

☒ Reduction factor related to D2 simulant :: 3



General technical documentation

Protection for the food industry

☐ Others (please specify)

Contact conditions (time and temperatures) corresponding to the input data

 Specify.....

5.

Functional barrier (FB) in the case of multilayer materials
☐ Not applicable

Or tick the corresponding box if the materials meet the requirements provided when using a FB:

- ☒ Multi-layer plastics (Article 13 (2), (3) and (4) of (EU) Regulation N° 10/2011)
- ☐ Multi-layer materials (Article 14 (2), (3) and (3) of (EU) Regulation N°10/2011)
- ☐ The material covered by this declaration is to be used only behind a functional barrier

This declaration is valid on condition that there is no modification of material composition, that its intended use has not changed and in the absence of regulatory changes.

Compliance is understood to be subject to compliance with the conditions of storage, handling and use, taking into account the specific characteristics of the material or item, and the conditions such as prescribed by professional practices or codes.

In the event of changes to the nature of the packaged product, its composition or its intended use, as well as in the event of a change in the conditions for using the material or the item, the person for whom this declaration is intended must ensure the compatibility packaging / content for which s/he then accepts responsibility.

Signed in Eulmont September 19th, 2023

(Company stamp and signature)




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