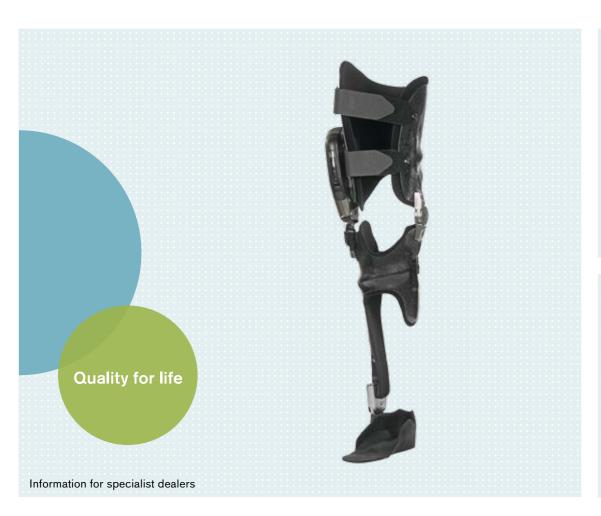
## ottobock.

# News and highlights 2019

Materials, components and solutions











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Up-to-date product information is always available to you on our website **www.pem.ottobock.com**.



# Explanation of symbols and hazardous substances

Hazard classes	Hazard categories
Inflammable gases	1
Inflammable aerosols	1, 2
Inflammable liquids	1, 2, 3
Inflammable solids	1, 2
Self-decomposing substances and mixtures	Types B, C, D, E, F
Pyrophoric liquids	1
Pyrophoric solids	1
Substances and mixtures capable of self-heating	1, 2
Substances and mixtures that release inflammable gases upon contact with water	1, 2, 3
Organic peroxides	Types B, C, D, E, F
Corrosive effect on metal	1
Caustic	1A, 1B, 1C
Severe eye damage	1
Acute toxicity (oral, dermal, inhalative)	4
Skin irritation	2
Eye irritation	2
Skin sensitisation	1
Specific target organ toxicity (one-time exposure)	3
Respiratory system irritation	
Anaesthetic effects	
Hazardous to water	
– Acutely hazardous to water	1
- Chronically hazardous to water	1, 2

- \* The hazardous substance symbols printed in the product information correspond to the labelling requirements for hazardous substances at the time of printing. They refer to the raw material. Changes reserved.
- Please note that the base colours shown in the product information may differ in actual effect.

For further information on the safety instructions, please see the corresponding Ottobock safety data sheet.

## Materials with skin contact

#### **CE** marking

Medical devices must not endanger the health of users or third parties at any time. In addition, the risks generally associated with their use always have to be justifiable compared to the benefits. This is why medical devices are subject to the provisions of the MPG (Medical Devices Act), and certain safety criteria must be met to bring them into circulation. This is confirmed by the visible CE marking. Ottobock declares with sole responsibility that all medical devices that are manufactured by Ottobock and bear the CE marking conform with the basic requirements of Council Directive 93/42/EEC of 14th June 1993 on medical devices.

#### **Material compatibility**

The EN ISO 10993 standard applies to the assessment of the biological compatibility of medical devices. The standard classifies medical devices according to the type and duration of intended body contact and identifies biological risks which must be evaluated according to the respective category of the product in question. The purpose of the biological assessment is to determine whether physiological hazards are expected from the medical device or its materials as a result of contact with the patient. Accordingly, the tests pursuant to EN ISO 10993 Part 5 (cytotoxicity) and EN ISO 10993 Part 10 (irritation and sensitisation) are relevant for Ottobock materials with skin contact.

#### Cytotoxicity test (EN ISO 10993 Part 5)

The cytotoxicity test is recognised and required as a basic biological test for all medical devices and their materials. Through the use of cell cultures, it is possible to establish that no cytotoxic substances are released from the material when used properly. Solids are extracted using a



culture medium or other suitable solvents and then used in the investigation. The cytotoxicity test offers indications of the biological compatibility of materials used to manufacture medical devices.

Relevant Ottobock materials have successfully passed this test; therefore, no cytotoxicity effect is expected. The biological compatibility of the relevant Ottobock materials is confirmed in accordance with the EN ISO 10993-5 standard or by equivalent data.

### **Testing for irritation and sensitisation** (EN ISO 10993 Part 10)

The most common test method is the patch test. This is a provocation test used to determine if there is a contact allergy. In this test, the test specimens or extracts are applied exclusively to the skin. As a rule, the test substances are applied to a test patch that has been especially prepared and is applied "on the skin" (=epicutaneous) of the patient. The patch is left in place for 48 hours before being removed. The physician examines the area of skin for possible changes (redden-



ing, swelling) 15 to 30 minutes after it is removed; this examination is repeated after two to three days and possibly again later.

The patch test is indicative of the biological compatibility of materials used for the production of medical devices. Relevant Ottobock materials have successfully passed this test, so skin irritation or allergic sensitisation are not expected. The biological compatibility of the relevant Ottobock materials is confirmed in accordance with the EN ISO 10993-10 standard or by equivalent data.



## Hazardous substances

#### Your concern

The first and most important step in the safe use of chemicals is being aware of their identity, the associated risks to health and the environment and the means to control these risks. This inherently complex knowledge must be organised so that essential information on hazards and the corresponding protective measures can be identified and communicated to the user in a readily comprehensible manner.

#### The Ottobock solution

As a global player, we are committed to safeguarding and protecting human health and the environment in which we work. For us, safety, environmental protection and health are an integral part of the production, sale and use of our products. Ottobock hazardous substances are accompanied by safety data sheets (SDS). These safety data sheets contain information such as physical data, health risks, first aid measures, storage, disposal and protective equipment. Ottobock can provide you with safety data sheets for all hazardous substances in your language and country-specific version.

#### **Advantages for you**

We offer you absolute reliability, safety and guaranteed availability. Electronically provided safety data sheets comply with the right-to-know provisions for immediate access to risk information around the clock. Make use of the most up-to-date database of safety data sheets on our website, which we update regularly for you.





Article no.	87G4=25
Net contents	25 kg

## Porous plaster

Article no. 87G4=25

### Area of application

- Special plaster for direct contact with silicones in vacuum technology for Pastasil and Chlorosil
- · Porous plaster for silicone technology

- Harder than modelling plaster
- Very good stability
- Low water consumption



- Mixing ratio 100 g water : 161 g plaster
- Mixing time approx. 2-4 minutes
- To protect the product during use, open or partly used bags should be carefully folded and sealed



Article no.	699G1=*-12
Article no.	
Length	3.6 m
Width	10/12 cm
Packing unit	Package of 12

## Elastic plaster bandages

Article no. 699G1=\*-12

### Area of application

• For taking a plaster cast

#### **Benefits**

- Compression of the elastic bandage begins as the plaster cures
- Curing time adapted to the application
- Coated plaster bandage that leads to less plaster waste, is easier and faster to work with, can take loads earlier and results in a higher final strength of the bandage

#### **Example for ordering**

Reference number = width -12699G1=10-12



Resin		Hardener		Colour paste
100	:	2-3	i	3

Article no.	617H19S=0.900	617H19S=4.600	617H19S=25
Net contents	0.9 kg	4.6 kg	25 kg

121156-1=EN 646F351=EN 646D1324=EN



· Adding hardener powders in proportions greater than 3% results in the formation of bubbles and a brittle lamination with all lamination resins used in the field of orthopaedic technology. Use Orthocryl lamination resin 80:20 Speed (article no. 617H19S=\*) to make small components available for further processing more quickly, without jeopardising quality.

## Orthocryl lamination resin 80:20 Speed

Article no. 617H19S=\*

### Area of application

· Lamination resin for small prosthetic and orthotic components

- Same mixing ratio of hardener powder and lamination resin as with Orthocryl lamination resin 80:20 (article no. 617H19=\*) (max. 3%)
- Requires only about half the curing time of Orthocryl lamination resin 80:20
- Using the same proportion of hardener powder prevents the formation of bubbles and a brittle lamination, with a shorter curing time
- Consistent lamination quality as with Orthocryl lamination resin 80:20, with a reduced curing time
- Same viscosity with the same mechanical characteristics as Orthocryl lamination resin 80:20
- Can be combined with all common reinforcement materials used in orthopaedic technology
- Hardener/colour pastes can be easily mixed in







Article no.	616B60=2	616B60=5	616B60=10
Packaging format	23 films, each 300 x 300 mm per film	56 films, each 300 x 300 mm per film	112 films, each 300 x 300 mm per film
Area	2 m²	5 m²	10 m²
Weight per unit area	340 g/m²	340 g/m²	340 g/m²

#### ☑ 129976-1=EN



- The optimal processing temperature is between 20 °C and 23 °C.
- · Make sure the processing area is dry and free of dust, talcum and
- The resin content of the laminate should be at least 50% by weight. For this reason, please pay attention to the weight per unit area of your reinforcement material.
- We recommend using the cooling spray (article no. 633T18) to make it easier to remove the protective film from the resin film. Spray the edge of the protective film lightly for this purpose.
- For the first layer, apply spray adhesive to the laminating tool.
- Cure for 4 h under vacuum in a 130 °C oven.

### Resin film

Article no. 616B60=\*

### Area of application

· Developed especially for exceptionally sturdy and lightweight prostheses and orthoses using lamination technology

#### **Benefits**

- Lighter, thinner components with stiffness equal to that of components on acrylic resin basis
- On epoxy resin basis
- · Clean and easy processing
- Excellent draping characteristics
- Resin quantity can be applied precisely
- Adjustable resin content
- Cut pieces of resin film can be stored in a conventional freezer
- Smaller storage volumes in freezer compared to prepreg
- Saves auxiliary materials (e.g. no additional fixing of reinforcing materials required)
- Can be combined with Ottobock reinforcement materials and prepregs

#### **Shipping information**

• Shipping days: Monday, Tuesday, Wednesday

#### Storage information

- When stored at a temperature of -18 °C, the resin film can be processed for approximately 12 months; at room temperature, a maximum of 21 days
- Freeze in moisture-proof sealed packaging; in order to avoid condensation, thaw to room temperature in moisture-proof sealed packaging
- Each thawing and freezing cycle reduces the storage stability and degrades the quality significantly

#### 616B60 resin film - for extra precision

www.ottobock.de/videoanleitung







Article no.	633T18
Net contents	400 ml

## Cooling spray

Article no. 633T18

### Area of application

- Device for loosening the covering film on prepregs
- Device for loosening the covering film on resin film (article no. 616B60=\*)
- Useful for demoulding components
- For immediate cooling of smaller areas or parts

- Possible temperature as low as -48 °C depending on spray duration
- Very rapid evaporation with no residue
- · Good cleaning effect
- No detrimental influences on plastics or insulating materials



#### Orthopox epoxy resin

Article no.	617H5=1	617H5=5
Net contents	1 kg	5 kg

#### **EP** hardener for Orthopox

Article no.	617P5=0.26	617P5=0.7
Net contents	0.26 kg	0.7 kg

	Resin	: Hardener :	Colour paste
	100	: 26	Max. 3
_			

## Orthopox epoxy resin and hardener

Article no. 617H5=\* and 617P5=\*

### Area of application

• For lightweight, thin-walled yet stable laminates

#### **Benefits**

- · Transparent epoxy-based resin
- Optimum resin content is easily established
- Small number of layers possible
- Optimum ratio of matrix to reinforcing materials
- Optimum impregnation, especially with carbon fibres
- Good adhesion to the reinforcement fibres
- Higher structural strength compared to acrylic resins
- Produces a very smooth surface
- Can be coloured with Ottobock colour pastes
- Setting time can be controlled via temperature



- Can be demoulded after 10 hours at 23 °C ambient temperature
- Interim annealing for 1 hour at 60 °C for optimal processing
- Final annealing for tension-free final hardness, 1 hour at 100 °C
- Optional: For permanent skin contact, 10 hours at 80 °C

134605-1=EN 646F351=EN 646D1324=EN



## Orthopox carbon fibre mesh

Article no. 616G12=H5.\*

#### Area of application

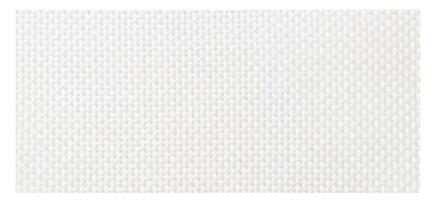
- Reinforcement fibres for Orthopox epoxy resin (article no. 617H5=\*)
- Not for use with acrylic resins

#### **Benefits**

- No fraying of the fibres
- · No double-sided adhesive tape required

Article no.	616G12=H5.1	616G12=H5.5
Length	1 m	5 m
Width	1.20 m	1.20 m

134605-1=EN 646F351=EN



## Orthopox flex mesh

Article no. 616G181=H5.2

#### Area of application

- Reinforcement fibres for Orthopox epoxy resin (article no. 617H5=\*)
- Not for use with acrylic resins

#### **Benefits**

- Dyneema replacement with better resin adhesion
- Prevents breakage
- Very good post-processing characteristics (e.g. sanding)

Article no.	616G181=H5.2
Length	2 m
Width	1.25 m

134605-1=EN 646F351=EN



Article no.	5 <b>Z1</b> 5	
Packaging format	2-fibre preform	
Order by	Package (2x fibre preform)	
Can be combined with*	4R41, 4R42, 4R42=1, 4R43, 4R89, 4R1114, 4R111=T, 4R111=N, 4R116, 4R116=T, 4R117, 4R117=T, 4R119=NT, 4R119=T, 4R119, 4R119=N, 4WR95=1, 4WR95=2	

<sup>\*</sup>Please note that the 5R2, 5R2=C, 4R63, 4R68 and 4R100 socket adapters may not be used with the 5Z15 fibre preform.

123854-1=EN

#### 5Z15 fibre preform - reinforcement made easy

http://videoguides.ottobock.com/5Z15-de





## Fibre preform

Article no. 5Z15

#### Area of application

• For reinforcement of the socket adapter

- · Quick, clean and easy reinforcement
- Preform with optimal fibre orientation in the direction of force
- Load-bearing fibre strands stay in place
- Saves time during the reinforcement process
- Very low material waste
- Good draping characteristics
- Simplified quantity control in comparison to rolled goods
- Good absorption of Ottobock lamination resins
- Can be combined with all Ottobock reinforcement materials



Article no.	617R15=1	617R15=2	617R15=5
Thickness	approx. 0.25 mm		
Packaging format	3 sheets (each 1 x 0.43 m/ per sheet; 1.29 m²)	6 sheets (each 1 x 0.43 m/ per sheet; 2.58 m²)	12 sheets (each 1 x 0.43 m/ per sheet; 5.16 m²)
Fibre weight per unit area	200 g/m²		
Weave type	Twill 2/2		
Fibre content	60% by weight		
Resin content	40% by weight		
Fibre weight per unit area Weave type Fibre content	per sheet; 1.29 m²) 200 g/m² Twill 2/2 60% by weight	`	`

(ii) 646A174=GB 646T757=EN

## TP.C carbon fibre cloth

Article no. 617R15=\*

### Area of application

• For high-strength, very thin orthoses on a thermoplastic material basis

#### **Benefits**

- Matrix: TPU
- Can be thermoformed under pressure
- High tensile strength
- Suitable for surfaces
- Paintable
- · Potentially adhesive
- Can be welded with components of the same matrix
- Clean processing
- No special storage requirements (e.g. no cooling)

#### **Processing**

• Moderate thermoforming temperature: approx. 220 °C



Article no.	617R18=*	
Length	2 m	
Width	50 mm, 100 mm, 190 mm	
Weight per unit area	400 g/m²	
Weave type	Twill 2/2	
Storage	Store UV protected	
•		

(ii) 123856=EN 646T757=EN



• 617R18 TP.C textile is particularly easy to process with the 755E62 and 755E5 Ottobock vacuum forming devices.

### TP.C textile

Article no. 617R18=\*

### Area of application

- For prostheses and orthoses on a thermoplastic material basis
- Can be used as reinforcement for ThermoLyn PP-H (article no. 616T20=\*)

#### **Benefits**

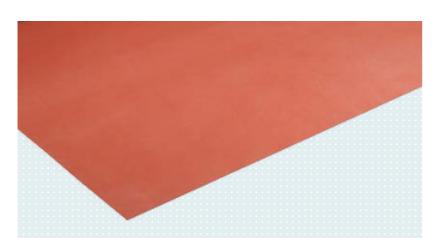
- Matrix: polypropylene
- Can be thermoformed under pressure
- High tensile strength
- Suitable for surfaces
- Can be welded with components of the same matrix
- · Clean processing
- No special storage requirements

#### **Processing**

• Moderate thermoforming temperature: approx. 220 °C

#### **Example for ordering**

Reference number = width x length 617R18=50x2



Article no.	616F28=10000x1220
Length	10,000 mm
Width	1,220 mm
Thickness	0.013 mm
Colour	Red

(i) 646A174=GB

## Separating film

Article no. 616F28=10000x1220

### Area of application

• Processing aid for TP.C carbon fibre cloth (article no. 617R15=\*) and TP.C texile (article no. 617R18=\*)

- · Thermally stable
- Elongation at break 300% +/-10%
- Tensile strength 24 N/mm2
- Processing temperature: max. 260 °C



Article no.	616T690=*
Length	400/1,225 mm
Width	400/1,225 mm
Thickness	8/10/12/15 mm
Colour	Black

(i) 646F265=GB 646D733=EN

## ThermoLyn soft, black

(polyethylene copolymer)

Article no. 616T690=\*

#### Area of application

- Suitable for fabricating flexible inner prosthetic sockets in lower limb prosthetics
- Sheet size of 1,225 x 1,225 mm is particularly suitable for the fabrication of pelvic sockets

#### **Benefits**

- High flexibility
- · Low density for especially low weight
- High tensile strength
- Odour-neutral
- · High surface quality
- Can be subsequently thermoformed
- Minor shrinkage: approx. 1.5%
- · Comfortable to wear
- Washable

#### **Processing**

• Temperature recommendation: 130 °C (convection oven, infrared oven)

#### **Example for ordering**

Reference number = length x thickness 616T690=400x8







Article no.	616T112=*		
Length	1,000 mm	1,000 mm	400 mm
Width	1,000 mm	1,000 mm	400 mm
Thickness	2/4 mm	2/3/4/5 mm	6/9/12/15 mm
Colour	Transparent (99), white (6), black (7), blue (5), red (2), light blue (5.3), burgundy (2.5), dark blue translucent (5.5), green (3), light red translucent (2.4), silver (16), neon pink (12.1), neon yellow (4.1), neon green (3.4), gold (17)	Beige (0)	Beige (0)

Article no. 616T113=*			
Length	5,000 mm	5,000 mm	5,000 mm
Width	1,000 mm	1,000 mm	1,000 mm
Thickness	1.5/3/4/5 mm	4/5 mm	3/4/5 mm
Colour	Transparent (99)	Black (7)	Beige (0)

(Ji) 646M69 646T753=EN (ii) 646D733=EN 646F265=GB

### ThermoLyn supra flexible (EVA)

Article no. 616T112=\*/616T113=\*

### Area of application

- Insoles
- Flexible diagnostic and definitive sockets for foot prostheses
- Flexible diagnostic sockets for upper and lower limb prostheses
- Waterproof splints and crutches
- · Flaps and fasteners for orthoses
- Flexible socket edge design for orthoses

#### **Benefits**

- · Permanently elastic
- · Shape-retentive
- High friction
- More comfortable socket edge design
- · Comfortable to wear
- · Large choice of colours
- Washable
- Subsequent welding possible
- Can be bonded to itself when heated

#### **Temperature recommendation**

- 100 130 °C (heating plate)
- 80 100 °C (infrared oven)
- 100 120 °C (convection oven)

#### Order examples

Reference number = thickness - colour 616T112=2-4.1

Reference number = 400x400xthickness 616T112=400x400x6

Reference number = thickness - colour 616T113=3x99









- Plaster model: smooth, dry, porous (article no. 87G4=25)
- Use a brush to apply Araform parting agent (article no. 84A4=12) to the plaster model as a separation layer and then cover with foil
- Short transport distances from oven to model
- Do not use talcum powder
- Use clean and smooth Teflon foil as underlay when heating in oven
- When lamination discs, reinforcement strips etc. are subsequently welded to the model, keep the model in vacuum conditions to ensure dimensional stability
- Avoid air pockets when welding the material



Article no.	616T112=40x40x5-7
Length	40 cm
Width	40 cm
Thickness	5 mm
Colour	Black (7)

(Ji) 646M69 646T753=EN 646D733=EN 646F265=GB

### ThermoLyn supra flexible, black (EVA)

Article no. 616T112=40x40x5-7

### Area of application

• Flexible definitive sockets for upper limb prostheses

#### **Benefits**

- · Permanently elastic
- Shape-retentive
- High friction
- · More comfortable socket edge design
- · Comfortable to wear
- Washable
- Subsequent welding possible
- Can be bonded to itself when heated

#### **Temperature recommendation**

- 100 130 °C (heating plate)
- 80 100 °C (infrared oven)
- 100 120 °C (convection oven)



Article no.	621X9=1-7	621X9=10-7		
Length	1 m	10 m		
Width	1.46 m	1.46 m		
Colour	Black (7)	Black (7)		

### Carbon synthetic leather

Article no. 621X9=\*

### Area of application

- Cover for orthoses, prostheses, wheelchairs and closures
- As an underlay for insoles

- 50% polyurethane, 50% polyamide
- · High abrasion resistance
- · Resistant to tearing
- · Colour-fast
- · Light-fast
- Suitable for cutting
- Suitable for punching
- · Easy to sand
- · Clean cut edges without fraying
- Well suited for bonding
- Can be thermoformed at 90-120 °C
- Minimal shrinkag



- Prepare a template using PVC film (article no. 616F1=\*)
- Transfer the shape to carbon synthetic leather (article no. 621X9=\*). In doing so, make sure the carbon pattern is consistently aligned to obtain a uniform overall appearance and to conceal joints!
- Use contact adhesive (article no. 636N9=\*) for fixing. The surfaces to be glued must be dry and free of dust, oil and grease.
- For better draping characteristics, warm carbon synthetic leather (article no. 621X9=\*) slightly with hot air.

### ComforTex

Article no. 623F\*

### Area of application

• For padding applications in orthotics

#### **Characteristics**

- · High resilience
- Individual shaping possible
- 30 °C gentle cycle
- Compatible with hook-and-loop, orthosis
- Compatible with hook-and-loop, skin side: no

### **Example for ordering**

Reference number: = length - colour 623F\*=1-7

Product name
Article no.
Chemical composition, orthosis side
Chemical composition, skin side
Characteristics
Length
Width
Thickness

(ii) 646M2 646D854=EN 646F295=GB







ComforTex grippy

623F112=\*

Black/black (7)



	ComforTex soft
	623F109=*
······································	100% polyamide
••••••	16% spandex, 84% polyamide
	Especially soft surface     Excellent padding characteristics     Excellent wearer comfort

1 m, 2 m, 5 m	
1,400 mm	
4 mm	
Black/black (7)	

· HF and ultrasound weldable

100%	polyamide
20%	spandex, 80% polyamide
<ul><li>Exc</li><li>Exc</li></ul>	r smooth surface ellent padding characteristics ellent wearer comfort and ultrasound weldable
1 m, 2	2 m, 5 m
1,400	mm
1,400 4 mm	mm

ComforTex smooth

623F110=\*

100% polyamide
16% spandex, 84% polyamide
Special knitting technique prevents slipping in the nap direction
<ul> <li>Excellent padding characteristics</li> </ul>
<ul> <li>Excellent wearer comfort</li> </ul>
<ul> <li>HF and ultrasound weldable</li> </ul>
1 m, 2 m, 5 m
1,400 mm
4 mm

ComforTex 623F62=*	air
100% polya	umide
100% polye	
1 m, 2 m, 5	
 3 mm	

Black/black (7)

Colour

## Thermopapers and Tabaluga socket decor

Article no. 623P110=\*/623S110=\*

### Area of application

• For custom colouring of synthetic materials or with lamination technology

#### **Benefits**

- Unique selection of designs with the popular "Tabaluga" motif in the colours red, green, blue and white
- Environmentally friendly, tear-proof paper or proven tubular fabric
- No additional workshop equipment or special technical knowledge required

#### Order examples

Reference number = length - colour 623P110 = 2 - 2

Reference number = width - colour 623S110 = 15 - 3

(i) 127137-1=EN



Tips for thermopapers:

Warm the synthetic material until it is completely transparent. Cut the thermopaper to size and apply it, with the design facing down, onto the precut component; carefully smooth the thermopaper from the middle towards the outside edges. After approx. 20 seconds, pull the thermopaper off the material.

Tips for socket decors:

In order to laminate socket decors, they may be sewn up and used as the first and/or last layer of the laminate like a stockinette, with the design facing the visible side.









#### 623P110 thermopaper

Article no.	623P110=*
Length	2 m
Width	75 cm
Colour	Red (2), green (3), blue (5), white (6)

#### 623S110 socket decor

Article no.	623S110=*
Length	1.5 m
Width	15 cm
Colour	Red (2), green (3), blue (5), white (6)

### CarbonTEX PRO

Article no. 616G128=\*

### Area of application

• For custom colouring with lamination technology

#### **Benefits**

- Excellent draping and sanding characteristics
- · Glossy look thanks to metallised carbon fibre cloth
- Good absorption of all Ottobock lamination resins
- Conventional lamination process
- · No additional technical knowledge or workshop equipment required



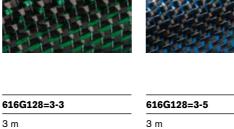


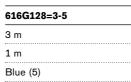


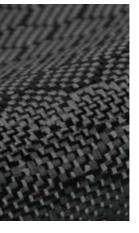
3 m

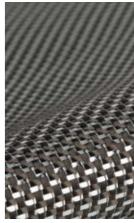
1 m

Green (3)









616G128=3-5	616G128=3-7	616G128=3-16	
3 m	3 m	3 m	
1 m	1 m	1 m	
Blue (5)	Hexagon black (7)	Silver (16)	

(ii) 646M80 119831-1=EN 646D696=EN



• Chemical protection gloves (article no. 641H17=\*), protective goggles and a breathing mask should be worn for health and safety reasons. Perform all process steps under an extractor hood.



#### Processing

Sand the surface of the socket to be laminated, clean with isopropyl alcohol (article no. 634A58) and mark the position of the eventual CarbonTEX seam on the socket with a pencil. Measure the socket length and circumference. Cut a corresponding piece of CarbonTEX with a width and length that is 10 cm greater than the respective measurement. To prevent the fibres from fraying, tape off the outside of the cut edge.

1 Apply removable spray adhesive (article no. 636K40) to the socket, starting on the side opposite the marked CarbonTEX seam. Then continue wetting the socket gradually, applying the layer of CarbonTEX around the socket without wrinkles and pressing it into place in the direction of the seam.



2 Attach one end of the layer of CarbonTEX to the previously marked seam with double-sided PVC adhesive tape (article no. 616F10=6) and trim the excess material with carbon scissors (article no. 719S21). Then press any protruding fibres back in place.



3 Clean the soaked PVA foil (article no. 616F4=\*) with paper towel on both sides and pull it over the model with the desired side (matte or gloss). Tie off the PVA film on the proximal end. Tie off temporarily in the distal region and create a vacuum.

Without adding colour paste, mix the desired quantity of Orthocryl lamination resin 80:20 Pro (article no. 617H119=\*) with 2% hardener and fill into the PVA bag. Then tie off above the added resin without leaving air pockets.

Align the model as shown in Fig. 3. Undo the temporary tie in the distal area between the resin and socket, and extract rising air bubbles with the vacuum. Then laminate the socket, with an even penetration of resin running at a 90° angle to the socket axis.

After hardening, cut the socket and sand it down.



Article no.	636K49=0.010	636K49
Net contents	10 ml	50 ml
Packaging format	1 cartridge with plunger and 2 mixing nozzles	1 cartridge and 6 mixing nozzles
Colour	Black	Black
Mixing ratio	10:1	10:1

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- To improve the hold of the bond, first bend the anchor arms in such a way that they lie as closely against the socket as possible.
- Then remove any grease with isopropyl alcohol (article no. 634A58). · Clean the socket with isopropyl alcohol (article no. 634A58) as well.
- · Loosen the screw on the anchor before gluing as the adapter thread connection may otherwise become stuck after gluing.
- Re-tighten the loosened screw with the corresponding Nm for the relevant adapter before fitting the socket.

## SuperGlue

Article no. 636K49/636K49=0.010

### Area of application

• For gluing metals, Duroplast and thermoplastics

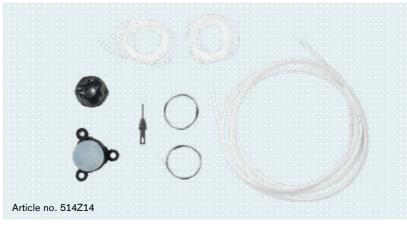
#### **Benefits**

- 2-component adhesive based on methyl methacrylate with very high adhesive strength
- Primerless gluing
- Fast gluing, for example of socket adapters
- Processing time: 4 to 7 minutes
- Curing time: approx. 15 minutes
- · Gel/highly viscous
- Fills gaps from 0.5 to 12 mm
- High tensile strength along with excellent peel strength
- High temperature resistance
- · Lasting strength and flexibility

#### **Accessories**

- Refill pack 636K49 SuperGlue, 20 mixing nozzles (article no. 756Y76)
- 636K49 SuperGlue dispensing gun (article no. 756K31)





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### RevoFit2

Article no. 514Z13/514Z14

### Area of application

- Closure and adjustment mechanism for prosthetic sockets
- 514Z13 set for check socket and 514Z14 set for laminated socket available

#### **Benefits**

- Flexible positioning of the reel housing via individual selection of the course of the pull cord (straight or parallel)
- Pull cord length supports various design possibilities
- Small housing footprint for individual positioning
- Offers an improved fit and optimises the comfort of the prosthesis
- · Minute adjustments can be made on the go
- Easy, one-handed operation by turning the BOA® reel
- Quick opening and closing
- Robust and durable
- Lightweight

#### **Accessories**

• Spare part set for RevoFit2 consisting of pull cord, threading aid and BOA® tool (article no. 514Z114)

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#### 514Z20 QuickFit strap

Article no.	514Z20=25-7	514Z20=38-7	514Z20=50-7
Length	approx. 73-63 cm	approx. 73-63 cm	approx. 73-63 cm
Width	approx. 25 cm	approx. 38 cm	approx. 50 cm
Colour	Black (7)	Black (7)	Black (7)

#### 514Z21 QuickFit buckle

Article no.	514Z21=25-7	514Z21=38-7	514Z21=50-7
Length	approx. 18 cm	approx. 18 cm	approx. 18 cm
Width	approx. 25 cm	approx. 38 cm	approx. 50 cm
Colour	Black (7)	Black (7)	Black (7)

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### QuickFit strap and QuickFit buckle

Article no. 514Z20=\*/514Z21=\*

### Area of application

• Closure and adjustment mechanism for orthoses

#### **Benefits**

- · Length can be individually shortened
- The magnetic component ensures that the mechanism can be aligned and locked effortlessly
- · Minute adjustments can be made on the go
- · Easy, one-handed operation by turning the reel
- Quick opening and closing
- · Robust and durable
- · Lightweight material
- Various combinations of the QuickFit strap and QuickFit buckle are possible

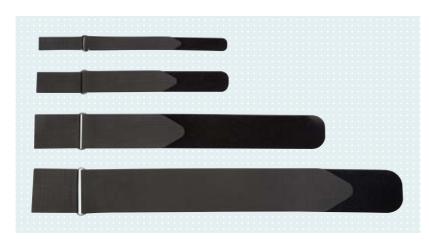
#### QuickFit strap (article no.: 514Z20=\*)

Minute adjustments can be made with just one hand thanks to the BOA® closure. Users can therefore influence the compression or hold of the orthosis individually. The lightweight, handy strap also offers a high level of comfort.

#### QuickFit buckle (article no.: 514Z21=\*)

The magnetic component ensures the closure locks effortlessly. Can be opened easily and intuitively with one hand.

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Article no.	21Y75N=280X16-7	21Y75N=280X25-7	21Y75N=400X40-7	21Y75N=680X50-7
Length	280 mm	280 mm	400 mm	680 mm
Width	16 mm	25 mm	40 mm	50 mm
Colour	Black (7)	Black (7)	Black (7)	Black (7)

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## PU hook-and-loop closure

Article no. 21Y75N=\*

### Area of application

- Closure technology for orthopaedic technology
- Especially for closure types with higher loads, e.g. walking orthoses

- Polyamide with PU coating
- · Heavy-duty hook-and-loop
- With strap guide loop
- Can be refastened many times
- User-friendly thanks to hook notch at the beginning of the closure
- · Very high hook-and-loop strength
- · Individually adaptable length
- Abrasion-proof, smooth surface
- Easy to clean thanks to PU coating
- Not bulky
- Washable with a damp cloth
- Attractive design
- · Various dimensions available



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