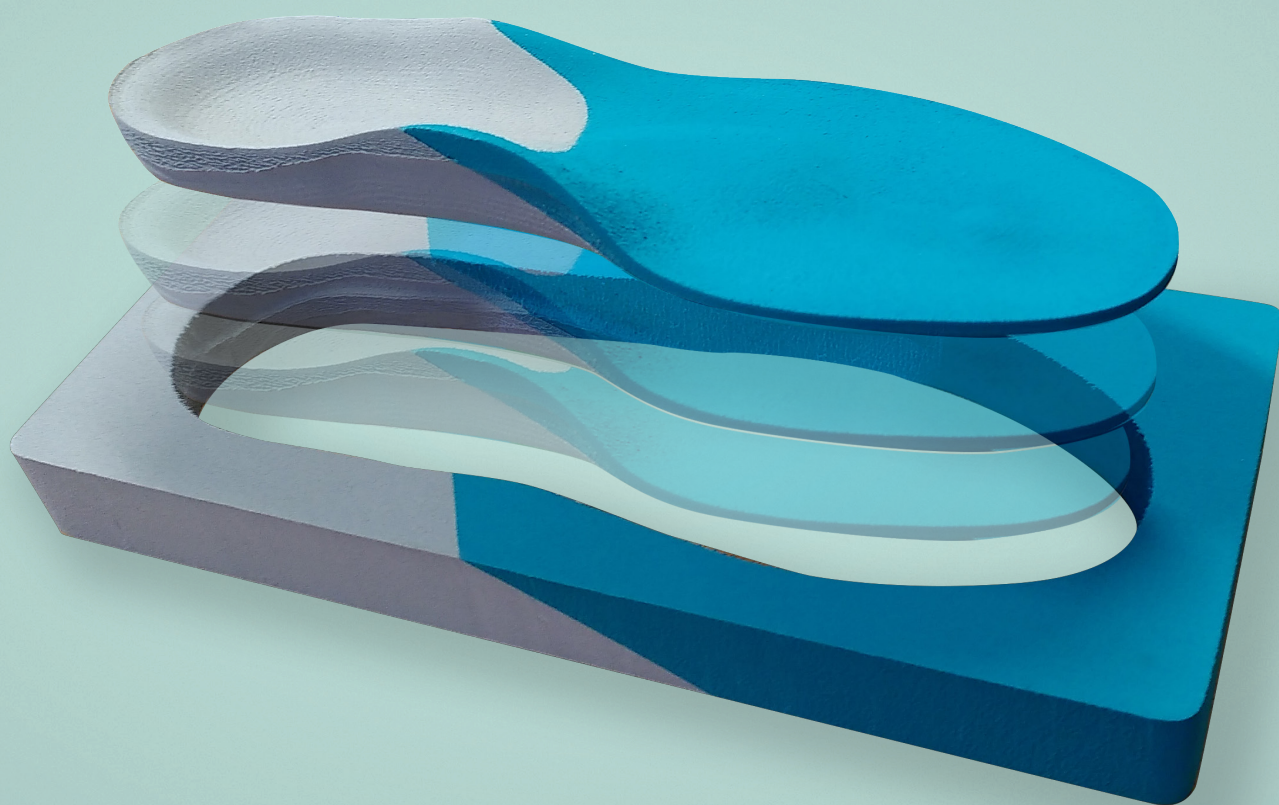


PAROPARTS

EVA MATERIAL



paroParts
paromed.de



paromed[®]

PAROPARTS

THE FOUNDATION FOR PERSONALIZED CARE

MATERIALS FOR CUSTOMIZED TREATMENTS

Every dental restoration has different requirements in terms of material, function, and workmanship. With paroParts, we offer you a coordinated product line that allows you to tailor your denture bases to the specific needs of each restoration.

At the heart of our product line are our EVA blanks, available in various material grades, hardness levels, combinations, and sizes. The product line is complemented by materials and components that allow you to precisely adjust function, stability, and cushioning..

IN THIS BROCHURE, YOU WILL FIND:

EVA Materials and Material Lines

for different requirements regarding rebound, cushioning, elasticity, and stability

Blanks and Sizes

for a needs-based selection and efficient use of materials

Materials and Components

featuring TorsionFlex, cover fabrics, stiffeners, and PU padding

Custom Solutions

for requirements that go beyond our standard product range

For information on the toxicological and ecological properties of the blanks, see:
"Material Testing Strategy and Batch Information" or the paromed MDR brochure.



PAROPARTS

EVA isn't always exactly EVA.

The composition of the various raw materials (compound) has an enormous effect on the recovery properties and durability of the material. The proportions of EVA and PE in particular have a significant influence on the quality and feel of the material.

We support you with regard to the provision of professional and high-quality care with an optimised product range: Our range includes blanks made from a wide variety of materials and material combinations in order to meet your care requirements in the best possible way. paroParts guarantee the best material properties, very good recovery properties and high stability, even at low thicknesses. All blanks are calibrated for double-sided cutting so that the defined height profile can be produced precisely on both sides.

SHORE HARDNESS ALONE IS NOT ENOUGH

Shore hardness describes the hardness of a material, but does not fully reflect its behavior under load. It is the interplay of various material properties that determines how EVA behaves in the insole. .

Resilience:

How quickly does the material return to its original shape after being subjected to stress?

Cushioning:

How does the material behave when subjected to stress?

Elasticity:

To what extent can the material deform and then return to its original shape?

Strength:

How resistant is the material to deformation?

MAKING MATERIAL BEHAVIOR MEASURABLE

To highlight the differences between the materials, we examine not only their Shore hardness but also their behavior under a defined compression load.

The compression set test on the following page shows how our materials differ in this regard.

MAKING MATERIAL BEHAVIOR MEASURABLE

The compression set test is used to determine how a material behaves under a defined load and how it recovers after the load is removed. The material sample is loaded to a compression of 50%, held for 15 seconds, and then unloaded. The forces acting on the material are measured throughout the entire process.

WHAT THE GRAPH SHOWS

1 | Elastic range

The material is subjected to a load and initially undergoes reversible deformation.

2 | Increasing deformation

As the load increases, the material begins to yield more and relieve stress.

3 | Compression and Damping

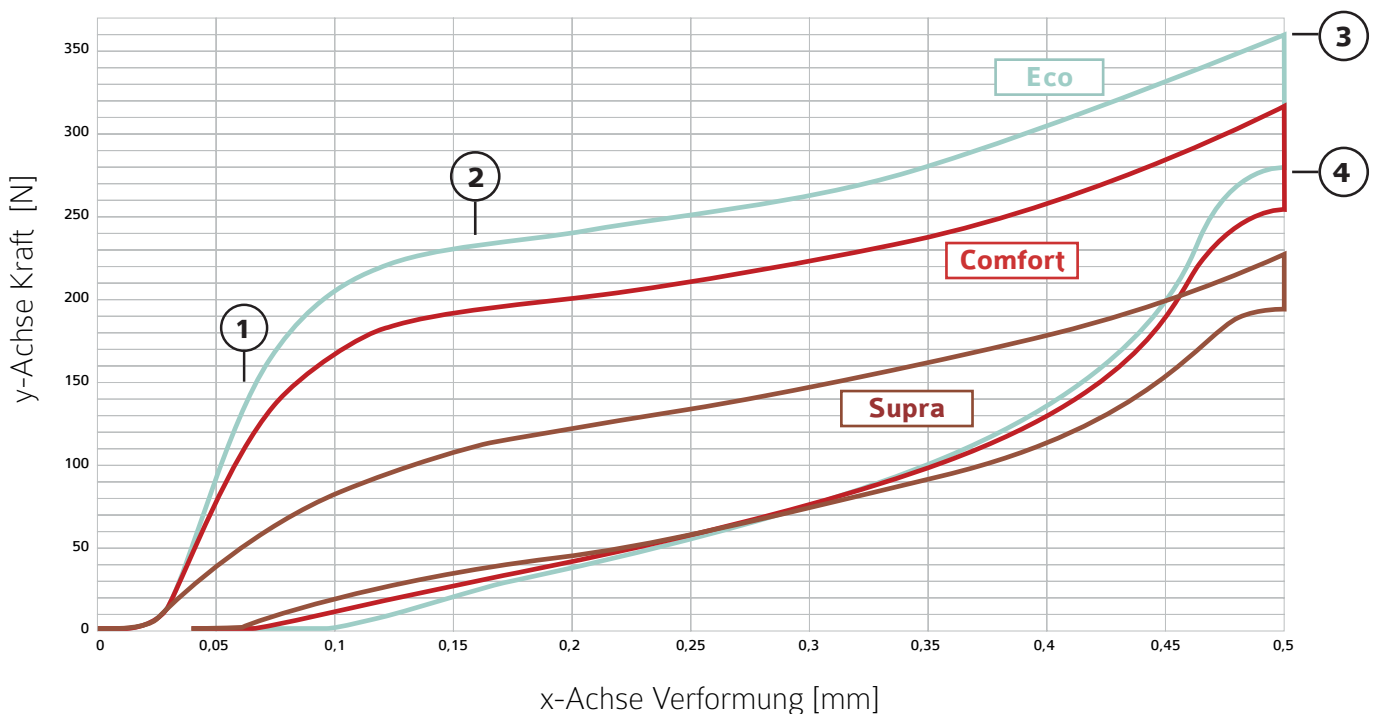
At 50% compression, the load is maintained. The resulting stress relaxation provides information about the material's damping behavior.

4 | Discharge and Accruals

After the load is removed, it becomes apparent to what extent the material returns to its original shape and what residual deformation remains.

DIFFERENCES THAT BECOME MEASURABLE

The curves show that EVA materials can behave differently even when they have the same Shore hardness. They thus provide additional information on damping, rebound, and deformation behavior, and complement the Shore A measurement alone.



PAROPARTS

A WIDE RANGE OF MATERIALS FOR EVERY NEED

THE RIGHT MATERIAL FOR EVERY NEED

The paroParts material lines offer a variety of material properties, allowing for a targeted selection based on specific restoration requirements.

ReEVA: Resources in the Cycle

Resource-efficient EVA from the paromed production cycle.

ECO-LINE: The Economic Foundation

EVA offers a balanced price-performance ratio for standard treatments.

COMFORT-LINE: The Versatile All-Rounder

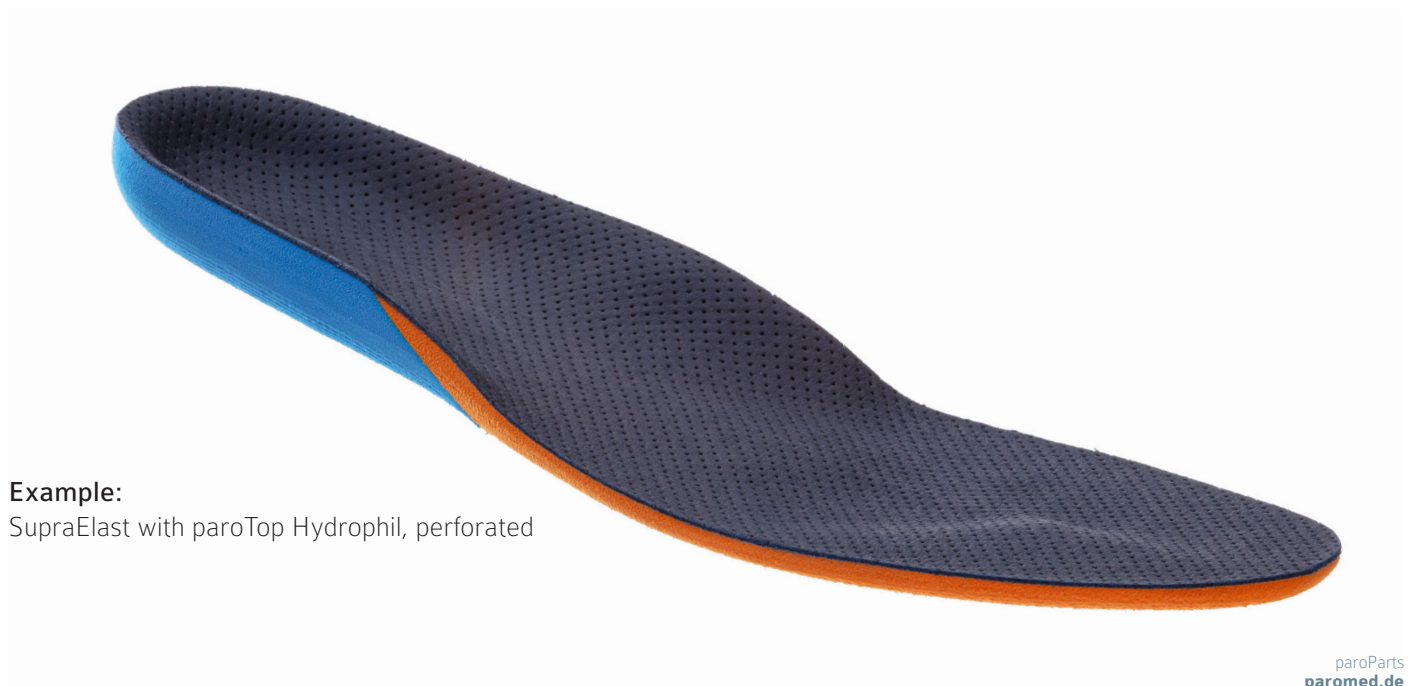
High-quality materials with excellent resilience and high strength - even at thin gauges.

SUPRA-LINE: For Special Material Requirements

The Supra-Line includes EVA materials with varying characteristics in terms of resilience, flexibility, and behavior under load.
SupraElast | SupraFlex | SupraSport

Ortho Crosslink

Customized construction of the insole consisting of at least 3 layers of varying Shore hardness; soft toward the foot, with Shore hardness increasing toward the insole; material selection based on medical indication and body weight; additional localized pressure relief when indicated; stabilizing base structure.



Example:

SupraElast with paroTop Hydrophil, perforated

COMPARISON OF MATERIAL PROPERTIES

This overview highlights the differences between our materials and helps you make an informed choice for your treatment.

Material	Features
Eco	Economic
Comfort EVA	Versatile
Comfort Kork	High stiffness
SupraElast	Strong gel-like texture
SupraFlex	High Flexibility
Supra Sport	High Energy Return
ReEVA	Resource-efficient
DiaCrossLink	For neurological foot conditions / PAD - PG31-compliant*



Blanks size 3:

Max. one-sided size: 45
Max. double-sided size: 45

* Symbolic image - Size 41



Blanks size 4:

Max. one-sided size: 43
Max. double-sided size: 43

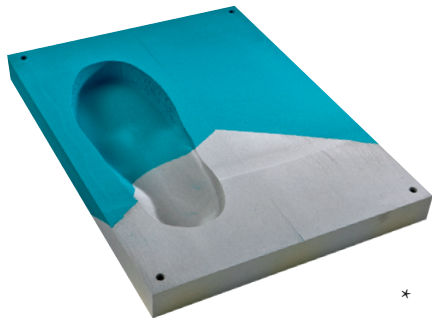
* Symbolic image - Size 42



Blanks size 5:

Max. one-sided size 50
Max. double-sided size: 50

* Symbolic image - Size 45



Blanks size 6:

Max. one-sided size 54
Max. double-sided size: 54

* Symbolic image - Size 45

* PG31: Customized construction of the insole consisting of at least 3 layers of varying Shore hardness; soft toward the foot, with Shore hardness increasing toward the insole; material selection based on medical indication and weight; additional point relief when indicated; stabilizing base structure.

PAROPARTS

A WIDE RANGE OF MATERIALS FOR EVERY NEED

MATERIALS AND COMPONENTS

The blank forms the basis of the insole. Depending on the intended use, it can be supplemented with specific functional components: TorsionFlex and stiffeners provide additional stability, while PU padding allows for a customized soft cushioning.

The cover material completes the insole. It is applied as the top layer and can be selected based on requirements for function, feel, and comfort.

TorsionFlex | Stiffeners | PU padding | Cover material

TORSIONFLEX

Targeted reinforcement. Maintaining mobility. TorsionFlex is a functional reinforcement for hallux rigidus orthotics. The three longitudinal grooves provide targeted stiffness in the direction of foot roll-off while simultaneously allowing for the necessary torsion around the longitudinal axis.

This reduces buckling of the metatarsophalangeal joint of the big toe, while the EVA insole in the rear-foot remains flexible.

TorsionFlex is manufactured from carbon-fiber-reinforced polyamide using FDM 3D printing and integrated into the CNC-milled underside of the insole.



Example:

Retroactive reinforcement of the underside of the insole



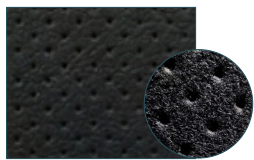
PAROPARTS

A WIDE RANGE OF MATERIALS FOR EVERY NEED

paraTop - COVERING MATERIALS

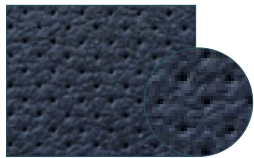
The perfect finish for the insole. Cover materials form the top layer of the insole. Depending on the material, they vary in feel, cushioning, and functional properties and can be selected to meet specific fitting requirements. This allows the surface of the insole to be tailored precisely to the wearer's intended use and needs.

Hydrophilic cover fabric. 100% breathable microfiber with high absorbency (8 times its own weight) and temperature-regulating properties. It offers comfort, dryness, and antibacterial properties.



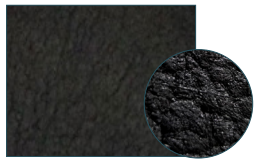
Black | paraTop Hydrophil + POR | perforated

0,8 mm + 2 mm | perforated



Navy | paraTop Hydrophil | perforated

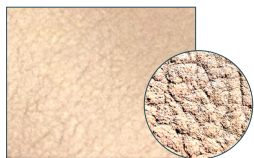
0.8 mm | perforated



Black | paraTop Hydrophil + POR

0,8 mm

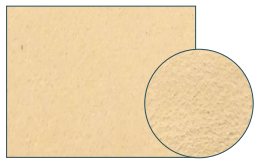
0,8 mm + 2 mm



Taupe | paraTop Hydrophil

0,8 mm

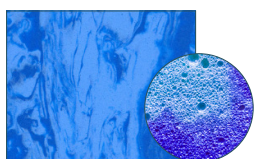
SUPRA Cover Fabric. The fabric consists of a functional, velvety-soft woven microfiber made from a blend of polyester and spandex, and is characterized by high elasticity, the ability to conform to contours, mechanical strength, and abrasion resistance.



Beige | paraTop Supra Stretch

0,6 mm

EVA cover material. EVA cover materials combine lightness and flexibility for superior comfort, cushioning properties for shock absorption and pressure relief, ease of processing for custom adjustments, and high durability despite their light weight.



aqua marbled | para Top EVA A30

0,6 mm Shore A30

PAROPARTS

GERMAN ORDINANCE ON MEDICAL DEVICES

QUALITY YOU CAN TRUST

For us, material quality doesn't begin with processing. That's why we test our materials for relevant constituents, mechanical properties, and consistent composition. In addition to the standard Shore A test, we use dynamic material testing to evaluate how the materials behave under stress.

TRACEABLE DOWN TO THE LOW

The lot numbers of the delivered blanks are listed on the delivery slip along with a QR code and barcode. The lot information can be assigned to the respective supply process and documented in paroManager or in the industry-specific software being used. This is how we integrate material testing, traceability, and documented quality throughout the supply process. All paroParts EVA products are latex-free.



- All our EVA products are latex-free.
- The materials in our blank products are tested for toxicologically relevant substances in accordance with the regulatory requirements
- They fulfil the basic requirements of Directive 93/42EEC
- In the field of orthopaedic technology, these products may be used for the manufacture of class-I medical devices with CE marking.

MATERIAL TESTING STRATEGY AND BATCH INFORMATION

In our laboratory, we not only check compliance with legal requirements regarding the contained additives or the maximum permissible concentrations of certain additives and cytotoxic properties of the compounds, but also the consistency of the composition of the processed materials and the resulting mechanical properties in the future. A dynamic material test is intended to supplement the limited informative value of a static Shore A value test.

Batch information equates to transparency at all levels. The batch numbers of the delivered blanks are listed in the delivery note with a QR code and a barcode. According to the new MDR, this batch information must be saved under your insole care project. You can process this data directly in paroManager, or alternatively, save it in your industry software under the relevant care process.

This closes the circle in two ways, firstly in terms of increased material safety, and secondly in terms of the sound further development of the material.

Our aim is to provide you with excellent equipment in the area of blanks as well, so that you, as our partner, can provide the best possible care for your customers.

WHEN THE STANDARD ISN'T ENOUGH

Our large selection of blanks allows you to further diversify the realisation of the individually-developed insole profile. Various materials in different hardness levels and combinations open up excellent possibilities for you.

If you have requirements that are not covered by our standard range, we offer you the option of getting customised materials made exclusively for you. We can adjust the following properties for you:

- Elasticity
- Cushioning
- Anti-static equipment
- Electrical conductivity (ESD requirement for work safety shoes)
- Good mechanical processing / bonding / grinding / cutting
- Wide range of colours

We produce and supply other special materials and colours according to your wishes.

WORKING TOGETHER TO FIND THE RIGHT SOLUTION

Do you have questions about our materials, need help choosing them, or have specific requirements? We'd be happy to advise you personally. We look forward to hearing from you.

Information:

We also manufacture blanks in your desired color and according to your specifications, with a minimum order quantity of 350 pairs. Please feel free to contact us for more information. Quality from the very beginning..



PAROMED GMBH & CO. KG

Heft 8
83115 Neubeuern
Tel.: +49 8035 90390
Fax: +49 8035 903939
E-Mail: info@paromed.de

Die Übersichten auf folgenden Seiten beschreiben den Unterschied zwischen unseren Material-Linien. Die Grafiken zeigen die verschiedenen Eigenschaften bei einem „Compression-Set“ -Test.

Die y-Achse zeigt die Kraft, die absorbiert werden kann, die x-Achse die dabei entstehende Verformung.

Über eine digitale Kraftmessdose wird unter konstantem Vorschub die Kraft/Zeit-Kurve bis zu einer 50%-Kompression der Materialprobe aufgenommen. Die Spannung wird für 15 Sekunden gehalten und die Kraftmessdose fährt automatisch mit gleicher Geschwindigkeit zurück, d.h. es wird auch bei Entspannung die vom Material ausgeübte Druckkraft gemessen und man kann am Ende der Kurve die aus dem Versuch verbleibende Restverformung feststellen.

Comfort-Line

EVA Rohlinge in höchster Qualität. Sie garantieren beste Materialeigenschaften, sehr gute Rückstelleigenschaften und eine hohe Festigkeit auch bei geringer Dicke. Dieses Material bildet auch die Grundlage für unsere „glabba“ Kollektion.

Eco-Line

EVA Rohlinge in guter Qualität zum optimalen Preis - Leistungs - Verhältnis. Auch bei geringer Stärke weist die EVA-Eco Line die positiven Eigenschaften aller paromed Produkte auf, jedoch bei etwas geringerer Rückstellung und Festigkeit.

Kork-Line

EVA trifft auf natürliche Materialien. Die qualitativ hochwertige Verbindung von EVA und Kork (EVA-Elasto-Kork), die sehr gute Verarbeitungseigenschaften besitzen, insbesondere bei hoher Festigkeit und Steifigkeit, auch bei geringer Dicke (z.B. Fersenrand).

SupraFlex

SupraFlex ist ein sehr hoch flexibles, hoch rückstellfähiges und elastisches EVA mit leichtem Gel-Charakter, welches seinen Einsatz im Fersen- und Polsterbereich, aber auch über die gesamte Einlage findet. Durch die feine Schaumstruktur und die damit verbundene hohe Dichte des Materials, ist es sehr widerstandsfähig und langlebig.

SupraElast

SupraElast und SupraFlex teilen sich die grundlegenden Eigenschaften, jedoch mit stärkerem Gel-Charakter. Die höheren Rückstelleigenschaften unterscheiden sich ca. 10% zur Comfort-Linie.

SupraSport

Ein innovatives Material für die optimale Versorgung von dynamischen Sportanwendungen. Es vereint höchste Ansprüche an maximale Energierückgabe, Dynamik und Elastizität. Dies stellt eine perfekte Dynamik über die gesamte Schrittabfolge sicher. Mehr Informationen in unserer SupraSport Broschüre.

WELCHEN EVA-TYP BENÖTIGEN SIE?

Folgende Übersicht zeigt auf, was Sie über unsere Rohlinge wissen müssen und welches das beste EVA Material für Ihre Bedürfnisse ist.

In diesem Vergleichstest werden unsere Produkte, deren Stärken und ihre Eigenschaften miteinander dargestellt.

ALLES AUS EINER HAND

TorsionFlex

TorsionFlex ist ein von paromed gefertigtes Polyamid mit Kohlefaseranteil, das im FDM-3D-Druckverfahren hergestellt wird. Es handelt sich um ein Formteil, das als Hallux Rigidus Feder in die CNC gefrästen Einlagenunterseiten eingebaut wird.

Durch die harmonische Formgebung bleibt die EVA-Einlage im Rückfuß flexibel. Die drei Längsrillen der TorsionFlex-Verstärkung wirken in der Abrollbewegung versteifend, erlauben jedoch die nötige Torsion um die Längsachse. Es reduziert sich also das Abknicken des Großzehengrundgelenks bei gleichzeitig großer Bewegungsfreiheit.



Deckstoffe

Produktbeschreibung Größe 12,5cm breit bis 48

- SUPRA Deckstoff 0,6mm, beige,
 - Hydrophil Deckstoff 0,8mm schwarz + POR 2mm schwarz, 2,8mm
 - Polstersohle mit Lederabdeckung nach Belastungsabdruck o.a. Materialien
- EVA-Deckstoff A30, marmoriert carbon



Softpatch

OPTIONAL PAROPARTS

FÜR ALLE FÄLLE DIE RICHTIGE GRÖSSE

Die paromed GmbH & Co.KG bietet das komplette Angebot für eine qualifizierte und hochwertige Versorgung und ist Ihr kompetenter Begleiter bis hin zur perfekten Einlage.

Rundumservice, hohe Verfügbarkeit, rasche Lieferung und zuverlässige Abwicklung – darauf können unsere Partner zählen.



Blanks size 3:

Max. one-sided size: 45
Max. double-sided size: 45

* Symbolic image - Size 41



Blanks size 4:

Max. one-sided size: 43
Max. double-sided size: 43

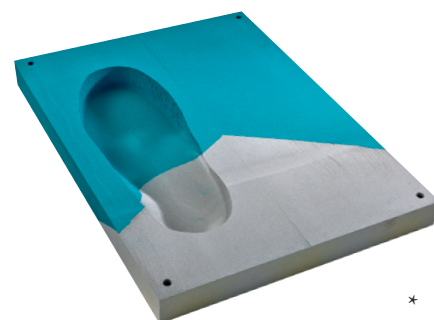
* Symbolic image - Size 42



Blanks size 5:

Max. one-sided size 50
Max. double-sided size: 50

* Symbolic image - Size 45



Blanks size 6:

Max. one-sided size 54
Max. double-sided size: 54

* Symbolic image - Size 45

our sizes for optimal material usage

Sizes	Shapes	One-sided cutting	Double-sided cutting	
Size 1/2:	● oval	x		
Size 3:	● oval	x	x	on stock
Size 4:	▼ Trapezium	x	x	on stock
Size 5:	▼ Trapezium	x	x	on stock
Size 6:	■ Plate	x	x	on stock

Additional info:

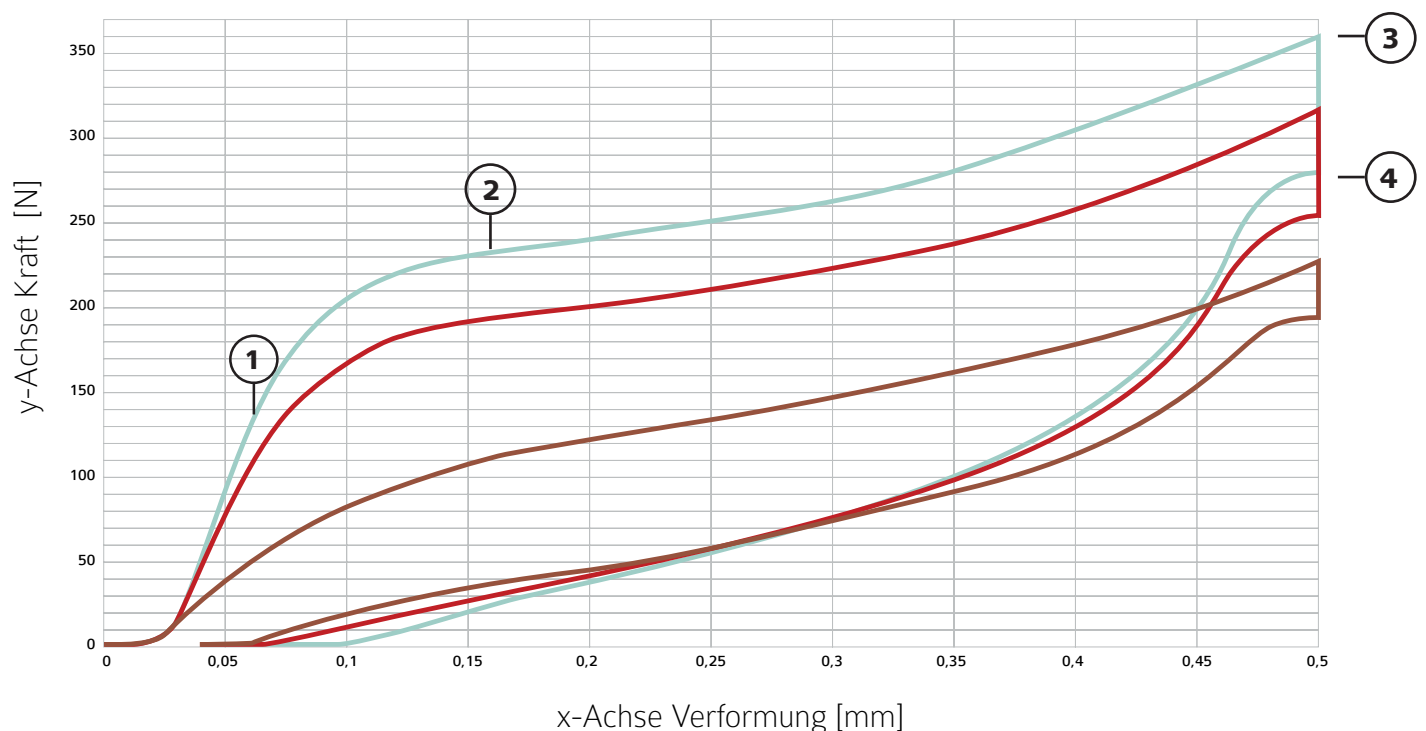
We also produce blanks in your desired colour and to your specifications from a minimum order quantity of 350 pairs onwards. Please feel free to contact us in this regard. Quality from the beginning.

OPTIONAL PAROPARTS

MATERIAL QUALITÄTEN

- 1 Der ideal-elastische Bereich (Kraft/Dehnung sind bis dahin proportional und Materialdeformation ist noch reversibel) wird verlassen.
- 2 Material baut durch Fließen Spannung ab, Kraft steigt geringer als die Dehnung.
- 3 Spitzenkraft für eine 50% Kompression ist erreicht und die Kompression wird gehalten. Material fließt und baut Spannung ab, dies stellt auch das Dämpfungsvermögen des Materials dar (Punkt 4 = Endpunkt der Entlastung unter Spannung). Je geringer der Spannungsabbau ausfällt, desto „sprungelastischer“ verhält sich das Material.
- 4 Nach kompletter Entlastung des Materials entsteht eine Deformation, die sich entweder noch erholt oder verbleibt. In diesen Beispielen geht das z.B. SupraSport-Muster fast komplett auf Null-Stauchung zurück während beim Comfort-Muster eine Deformation bestehen bleibt.

Zur Interpretation gilt eine möglichst lineare Kurve als ideal. So kann man aus Gewicht und Shorehärte die ideale Korrektur errechnen.



MATERIALEIGENSCHAFTEN IM VERGLEICH

Die Übersicht zeigt die Unterschiede unserer Materialien und unterstützt Sie bei der gezielten Auswahl für Ihre Versorgung.

Material	Rückstellung	Dämpfung	Flexibilität	Festigkeit	Dauerbelastung	Besonderheiten
Eco	●●	●	●●	●●	●●●	Wirtschaftlich
Comfort EVA	●●	●	●	●●●	●	Vielseitig
Comfort Kork	●●●	●	●●	●●●●	●●●●	hoher Steigkeit
SupraElast	●●	●	●●	●●●●	●●●●	?
SupraFlex	●●	●	●●	●●	●●●	hohe Flexibilität
Supra Sport	●●	●●	●●	●●	●●	Hohe Energierückgabe
ReEVA	●●	●●	●●	●●	●●	Ressourcenschonend
DiaCrossLink	●●	●●	●●	●●	●●	PG31-konform*



*

Rohlinge Größe 3:

Max. Größe einseitig: 45
Max. Größe beidseitig: 42

* Symbolbild Größe 41



*

Rohlinge Größe 4:

Max. Größe einseitig: 43
Max. Größe beidseitig: 42

* Symbolbild Größe 42

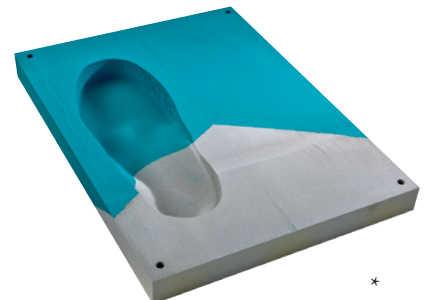


*

Rohlinge Größe 5:

Max. Größe einseitig: 50
Max. Größe beidseitig: 49

* Symbolbild Größe 45



*

Platten Größe 6:

Max. Größe einseitig: 56
Max. Größe beidseitig: 55

* Symbolbild Größe 45

* Individueller Aufbau der Bettung aus mindestens 3 Schichten unterschiedlicher Shorehärte; zum Fuß weich, zur Brandsohle mit zunehmender Shorehärte, indikations- und gewichtsbezogene Materialauswahl, zusätzliche Punktentlastung bei Indikation, Unterbau stabilisierend