



ACRYLIC 101-181

FOOT ORTHOTIC SHELLS AND SHOE REINFORCEMENTS



ACRYLIC

The **ACRYLIC line** summarizes self-supporting orthotic shells, which are available in different arch support heights and standardized outlines. They are ideally suited for producing manually manufactured foot orthoses. For the ACRYLIC shells the wide range of **PERPEDES** fiber composite materials with all their benefits is available. Our composite fibers are PMMA (polymethyl methacrylate) made from acrylic resin with embedded carbon or glass fiber woven or knitted fabric, often in combination with polyamide.

	ACRYLIC SHELLS								SHOE REINFORCEMENTS		
	101	101 DET	108	110	112	113	115	116	179	180	181
Pre cut	x	x	x	x	x	x	x	x	x	x	x
Moderate arch support	x	x	x	x	x	x	x	x			
Higher arch support	x	x									
Moderate heel spring	x	x	x	x	x	x	x	x	x	x	x
Available as flat / non-shaped shell	x	x	x	x	x	x	x	x	x	x	x
Extra wide outline (flat)	x										
Slightly convex heel area	x	x	x			x	x	x			
Lateral heel support			x								
Heel cup				x	x						
Hallux varus splint					x						
Short motion-limiting splint for MTP 1 (Hallux limitus)						x					
Long motion-limiting splint for MTP 1 (Hallux limitus)							x				
Motion-limitation of the complete forefoot								x			
Shoe / insole reinforcement / stiffener									x	x	x
Made of glass fiber composites (G**) knitted or woven fibers, various thicknesses and rigidities	x	x	x	x	x	x	x	x	x	x	x
Made of glass fiber / polyamide composites (GH**) knitted fibers, various thicknesses and rigidities	x	x	x	x	x	x	x	x			
Made of carbon fiber composites (C**) knitted or woven fibers, various thicknesses and rigidities	x	x	x	x	x	x	x	x	x	x	x

CHARACTERISTICS

Thin and light weight, therefore suitable for footwear that is space limited

Durable

Rigid or flexible, depending on textile type and thickness

Selected materials are penetration resistant (important for safety shoes)

Pre-shaped or non-shaped / flat shells available

Available in various pre-defined outlines, e.g. as short and full length shells with short and long rigidus splints

For special outlines or sizes, Perpedes' composite fiber materials are either available in sheets or in customized outlines

Also suitable and available as pre-cut reinforcing layers in footwear, e.g. for diabetics and safety shoes (art.no. 179-181)

PROCESSING

Woven and knitted glass / carbon textile have different properties that define the thermalmoldability and rigidity of a shell

- Composites with knitted glass or carbon are recommended for 3D-moldings, e.g. high cupped foot orthotic shells
- Composites with woven glass or carbon fabric are suitable for moderate arch support heights in foot orthotic shells without heel cups, as well as for shoe reinforcements

Easily thermoformable / modifiable at max. 140° C

Heating duration approx. 3- 8 min depending on the heating source and material thickness

- Check in advance whether the material is soft and bendable enough to mold

Molding is recommended over a positive (plaster or last) under vacuum

Composite materials made of carbon and glass fiber can be cut and ground with tools, suitable for metal. Do only use grinders with dust extraction!

Recommended is to process composite fiber shells with top and base covers for the best wearing comfort and compliance

ACRYLIC 101



SUPPORTIVE FOOT ORTHOTIC SHELL (CLASSIC CUT)

Size range: 23/24 - 31/32 (double sizes)

Size range: 33 - 50 (single sizes)

Moderate or higher longitudinal arch support available

Available also in an extra wide outline (flat)

ACRYLIC 101DET



SUPPORTIVE FOOT ORTHOTIC SHELL WITH FOREFOOT DETORSION CUT

Size range: 23/24 - 31/32 (double sizes)

Size range: 33 - 50 (single sizes)

Moderate or higher longitudinal arch support available

ACRYLIC 108

CORRECTIVE FOOT ORTHOTIC SHELL
WITH LATERAL HEEL FLANGE

Size range: 20 - 42 (single sizes)
Moderate longitudinal arch support



ACRYLIC 112

CORRECTIVE FOOT ORTHOTIC SHELL
WITH LATERAL AND MEDIAL HEEL FLANGES
AND HALLUX VARUS SPLINT

Size range: 19/20 - 29/30 (double sizes)
Size range: 31 - 48 (single sizes)
Moderate longitudinal arch support



ACRYLIC 110

CORRECTIVE FOOT ORTHOTIC SHELL
WITH LATERAL AND MEDIAL
HEEL FLANGES

Size range: 19/20 - 21/22 (double sizes)
Size range: 23 - 46 (single sizes)
Moderate longitudinal arch support, high heel cup



ACRYLIC 113

SUPPORTIVE FOOT ORTHOTIC SHELL
WITH MOTION-LIMITING REINFORCEMENT
(SHORT) UNDERNEATH MTP-JOINT I
(FOR HALLUX LIMITUS)

Size range: 35/36 - 45/46 (double sizes)
Moderate longitudinal arch support



ACRYLIC 115

SUPPORTIVE FOOT ORTHOTIC SHELL WITH MOTION-LIMITING REINFORCEMENT (LONG) UNDERNEATH MTP-JOINT I (FOR HALLUX LIMITUS)

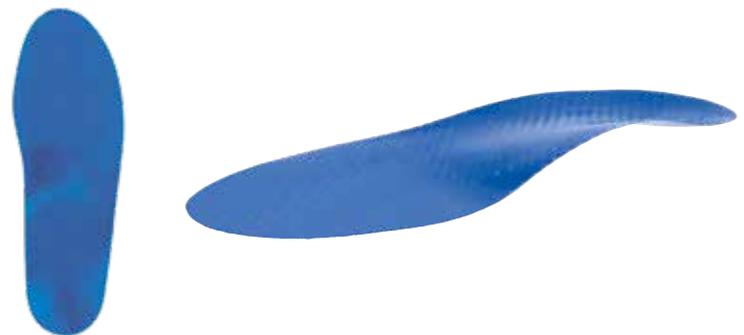
Size range: 35/36 - 45/46 (double sizes)
Moderate longitudinal arch support



ACRYLIC 116

SUPPORTIVE FOOT ORTHOTIC SHELL WITH MOTION-LIMITING REINFORCEMENT EFFECTIVE FOR THE ENTIRE FOREFOOT

Size range: 35/36 - 45/46 (double sizes)
Moderate longitudinal arch support



ACRYLIC 179 / 180 / 181

SHOE STIFFENERS / REINFORCEMENTS serve to protect or immobilize the foot and its joints in the shoe, like it is required for sensitive disorders, e.g. the diabetic foot syndrome. This requires stiffening of the shoe's flexible parts, e.g. the outsole. The existing sole is cut open, the stiffening layer is incorporated and a functionally compensating rockersole is provided. Shoe stiffeners / reinforcements can be chosen from a variety of Perpedes' glass and carbon fiber composite materials.



179 - 181
Size range: 20 - 48
3D-Contour: F = flat
V = slight heel spring with flat heel





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