

# Otto Bock®

QUALITY FOR LIFE



## SILICONE (SIL) · POLYURETHANE (PUR) · COPOLYMER (TPE)

Liner Selection Tool

Theory

Suggestions

6Y40/42/  
70/75

88L  
6Y70/75/80

6Y60/  
510

6Y520-523

6Y400/  
414/540

## Directions

The Liner Selection Tool was developed to assist the prosthetist in selecting the most appropriate liner and suspension. We used prosthetic research and published studies to develop a simple table.

*The final clinical decision is the responsibility of the managing practitioner.*

### **Part 1: Quick Guide Table**

To use, simply find the patient's activity level (low, medium or high) at the top of the table, then find the desired suspension (Pin, Valve or Harmony) within that column. The tool will indicate which material (Silicone [SIL], copolymer [TPE] or urethane [PUR]) is most suitable by the number of bold stars.

### **Part 2: Suggestions by Residual Limb Type**




To further enhance your decision, find the picture of the residual limb characteristics – use the table and the tool will indicate the material choices and specific liner article number(s).

### **Part 3:**

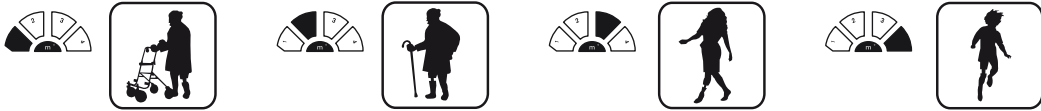
To find specific liner information, use the thumb cut-outs and flip to the specific page

Thank you for your interest and support of Otto Bock Socket Technologies products!

## Quick guide table

	low	medium	high																											
<b>Pin</b>	 <table border="1"> <tr><td>SIL</td><td>—</td><td>★ ★ ★</td></tr> <tr><td>TPE</td><td>—</td><td>★ ★ *</td></tr> <tr><td>PUR</td><td>—</td><td>★ * *</td></tr> </table>	SIL	—	★ ★ ★	TPE	—	★ ★ *	PUR	—	★ * *	 <table border="1"> <tr><td>SIL</td><td>—</td><td>★ ★ *</td></tr> <tr><td>TPE</td><td>—</td><td>★ * *</td></tr> <tr><td>PUR</td><td>—</td><td>* * *</td></tr> </table>	SIL	—	★ ★ *	TPE	—	★ * *	PUR	—	* * *	 <table border="1"> <tr><td>SIL</td><td>—</td><td>★ * *</td></tr> <tr><td>TPE</td><td>—</td><td>* * *</td></tr> <tr><td>PUR</td><td>—</td><td>* * *</td></tr> </table>	SIL	—	★ * *	TPE	—	* * *	PUR	—	* * *
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<b>Valve</b>	<table border="1"> <tr><td>SIL</td><td>—</td><td>★ * *</td></tr> <tr><td>TPE</td><td>—</td><td>★ ★ ★</td></tr> <tr><td>PUR</td><td>—</td><td>★ ★ ★</td></tr> </table>	SIL	—	★ * *	TPE	—	★ ★ ★	PUR	—	★ ★ ★	<table border="1"> <tr><td>SIL</td><td>—</td><td>★ * *</td></tr> <tr><td>TPE</td><td>—</td><td>★ ★ ★</td></tr> <tr><td>PUR</td><td>—</td><td>★ ★ ★</td></tr> </table>	SIL	—	★ * *	TPE	—	★ ★ ★	PUR	—	★ ★ ★	<table border="1"> <tr><td>SIL</td><td>—</td><td>* * *</td></tr> <tr><td>TPE</td><td>—</td><td>★ ★ *</td></tr> <tr><td>PUR</td><td>—</td><td>★ ★ ★</td></tr> </table>	SIL	—	* * *	TPE	—	★ ★ *	PUR	—	★ ★ ★
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<b>Harmony</b>	<table border="1"> <tr><td>SIL</td><td>—</td><td>* * *</td></tr> <tr><td>TPE</td><td>—</td><td>* * *</td></tr> <tr><td>PUR</td><td>—</td><td>★ ★ ★</td></tr> </table>	SIL	—	* * *	TPE	—	* * *	PUR	—	★ ★ ★	<table border="1"> <tr><td>SIL</td><td>—</td><td>* * *</td></tr> <tr><td>TPE</td><td>—</td><td>* * *</td></tr> <tr><td>PUR</td><td>—</td><td>★ ★ ★</td></tr> </table>	SIL	—	* * *	TPE	—	* * *	PUR	—	★ ★ ★	<table border="1"> <tr><td>SIL</td><td>—</td><td>* * *</td></tr> <tr><td>TPE</td><td>—</td><td>* * *</td></tr> <tr><td>PUR</td><td>—</td><td>★ ★ ★</td></tr> </table>	SIL	—	* * *	TPE	—	* * *	PUR	—	★ ★ ★
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PUR	—	★ ★ ★																												

## Patient's activity level



The key to patient comfort is a balanced and controlled socket environment that never allows a single force or combination of forces to reach a level of distress and damage tissue.

Dr. Sanders and Dr. Burgess identify five forces inside the socket that can be managed but not eliminated.  
*(Journal of Rehabilitation Research and Development Vol. 29 No. 4, 1992, Pages 1-8)*



Impact



Rotational



Shear

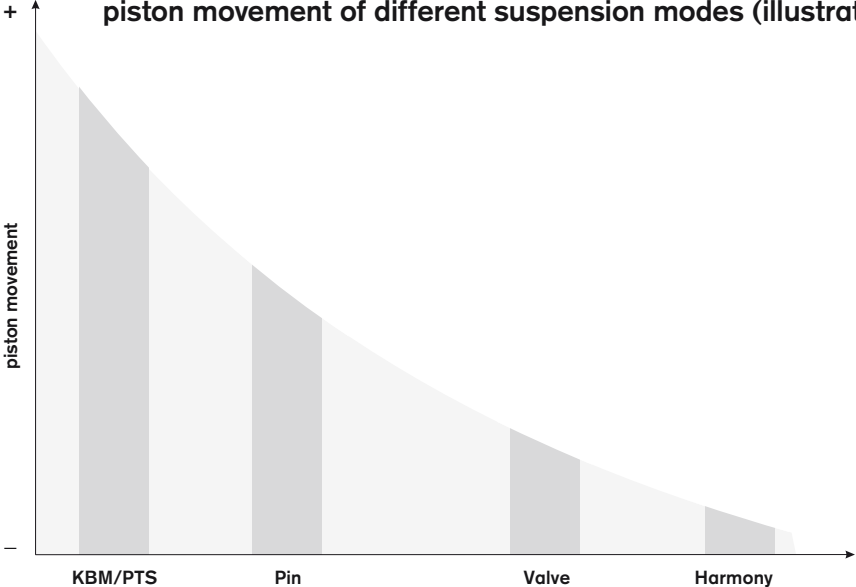


Repetitive



Resultant

# piston movement of different suspension modes (illustration)



# Suggestions by Residual Limb Type

Residual limb characteristics v. Activity level



cylindrical with  
redundant fleshy  
tissues

Pin	SIL	— * 6Y42/70/75	SIL	— * 6Y42/70/75
	TPE	— * * *	TPE	— * * *
	PUR	— * * *	PUR	— * * *
Valve	SIL	— * 6Y71	SIL	— * 6Y71
	TPE	— * * * 6Y92/93	TPE	— * * * 6Y92/93
	PUR	— * * * 6Y400/523	PUR	— * * * 6Y400/523
Harmony	SIL	— * * *	SIL	— * * *
	TPE	— * * *	TPE	— * * *
	PUR	— * * * 6Y414/522	PUR	— * * * 6Y414/522

# Suggestions by Residual Limb Type

Residual limb characteristics v. Activity level



cylindrical with firm tissues

Pin	SIL	6Y42/70/75	6Y42/70/75	88L/6Y70/75
	TPE	6Y90/93	6Y90/93	6Y92/93
	PUR	6Y60	6Y60	6Y400/520/523
Valve	SIL	6Y71	6Y71	6Y71
	TPE	6Y92/93	6Y92/93	6Y92/93
	PUR	6Y400/520/523	6Y400/520/523	6Y400/520/523
Harmony	SIL			
	TPE			
	PUR	6Y414/520/522	6Y414/520/522	6Y414/520/522

# Suggestions by Residual Limb Type

Residual limb characteristics v. Activity level



conical with  
redundant tissues

Pin	SIL	88L	88L	
	TPE	*	*	*
	PUR	*	*	*
Valve	SIL	6Y71	6Y71	
	TPE	* * * *	* * * *	* * * *
	PUR	* * * *	* * * *	* * * *
Harmony	SIL	*	*	*
	TPE	*	*	*
	PUR	* * * *	* * * *	* * * *

# Suggestions by Residual Limb Type

Residual limb characteristics v. Activity level



conical with firm tissues

Pin	SIL	88L/6Y40/70/75	88L/6Y40/70/75	88L/6Y40/70/75
	TPE	6Y90/93	6Y90/93	*
	PUR	6Y60	6Y60	*
Valve	SIL	6Y71	6Y71	*
	TPE	6Y92/93	6Y92/93	6Y92/93
	PUR	6Y400/510	6Y400/510	6Y400/510
Harmony	SIL	*	*	*
	TPE	*	*	*
	PUR	6Y414/510	6Y414/510	6Y414/510

# Suggestions by Residual Limb Type

Residual limb characteristics v. Activity level



bony shape

Pin	SIL	88L	88L	88L
	TPE	6Y90/93	6Y90/93	6Y90/93
	PUR	6Y60	6Y60	6Y60
Valve	SIL	6Y71	6Y71	6Y71
	TPE	6Y92/93	6Y92/93	6Y92/93
	PUR	6Y400/520/523	6Y400/520/523	6Y400/520/523
Harmony	SIL			
	TPE			
	PUR	6Y414/520/522	6Y414/520/522	6Y414/520/522

# Suggestions by Residual Limb Type

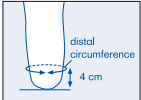
Residual limb characteristics v. Activity level



sensitive with invaginated scars

Pin	SIL	* * * 88L	* * * 88L	* * * 88L
	TPE	* * *	* * *	* * *
	PUR	* * *	* * *	* * *
Valve	SIL	* * *	* * *	* * *
	TPE	* * *	* * *	* * *
	PUR	* * * 6Y400	* * * 6Y400	* * * 6Y400
Harmony	SIL	* * *	* * *	* * *
	TPE	* * *	* * *	* * *
	PUR	* * * 6Y414	* * * 6Y414	* * * 6Y414

## Otto Bock Silicone-Liner

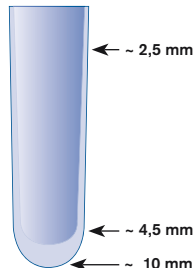
Article no.	6Y40	6Y42
characteristics	basic and durable Silicone prosthetic liner	
distal attachment	with	with
outside cover	without	with
socket design	specific weight bearing socket	
<b>sizes</b> (see distal circumference) 	<b>120 mm, 140 mm, 160 mm, 180 mm, 200 mm, 210 mm, 220 mm, 235 mm, 250 mm, 265 mm, 280 mm, 300 mm, 320 mm, 340 mm, 360 mm, 380 mm, 400 mm, 420 mm, 450 mm</b>	<b>180 mm, 200 mm, 210 mm, 220 mm, 235 mm, 250 mm, 265 mm, 280 mm, 300 mm, 320 mm, 340 mm, 360 mm, 380 mm, 400 mm, 420 mm, 450 mm</b>

Order no. (order example):

Article no.	=	size
<b>6Y40</b>	=	<b>280</b>

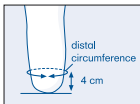


Liner Care:  
daily



# Otto Bock SiliconGel-Liner

Article no.	6Y75	6Y70
<b>characteristics</b>	silky skin friendly internal surface, internal distal elongation reduction, antibacterial additive Sanitized®	silky skin friendly internal surface, internal distal elongation reduction
<b>distal attachment</b>	with	with
<b>outside cover</b>	with	with
<b>socket design</b>	specific weight bearing socket	
<b>sizes</b> (see distal circumference)	<b>160 mm, 180 mm, 200 mm, 210 mm, 220 mm, 235 mm, 250 mm, 265 mm, 280 mm, 300 mm, 320 mm, 340 mm, 360 mm, 380 mm, 400 mm</b> also available as custom liner 6Y70/75=M	

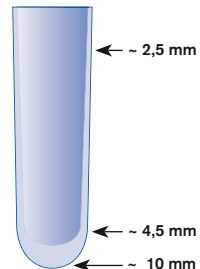


**Order no. (order example):**

Article no.	=	size
<b>6Y75</b>	=	<b>280</b>



**Liner care:**  
daily



## Otto Bock Silicone-Custom Liner

Otto Bock understands that your patients are unique with different challenges. Our Custom Liners are an excellent solution when a personalized fit is needed.

### Locking and Non-Locking Silicone Custom Liners

Our Custom Silicone Liners provide solutions when the situation requires locking liner suspension or added durability. The Custom Silicone liners range from Custom versions of our 6Y70 and 6Y80 liners to highly versatile and durable Custom Service Fabrication liner for unique shapes including extreme conical; scarring; multiple durometers; undercuts; varied lengths and thicknesses; and possible custom coloring for a truly personalized touch.

6Y70=M	Custom Silicone Liner from Measurements
6Y75=M	Custom Silicone Liner with Skin GuardTechnology® from Measurements
88L	Custom Service Fabrication Silicone from Cast
6Y80=M	Custom TF Adapt Silicone Liner from Measurements



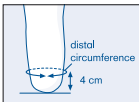
Liner care:  
daily



← individual,  
please ask your  
local Otto Bock  
branch

## Otto Bock TF Adapt (SIL) (for trans-femoral fittings)

<b>Article no.</b>	<b>6Y80</b>
<b>characteristics</b>	low elongation (piston) movement and high circumferential elasticity
<b>distal attachment</b>	with
<b>outside cover</b>	with
<b>socket design</b>	specific weight bearing socket
<b>sizes</b> (see distal circumference)	<b>280 mm, 300 mm, 320 mm, 340 mm, 360 mm, 380 mm, 400 mm, 420 mm, 450 mm, 500 mm, 550 mm</b> also available as custom liner (6Y80=M)

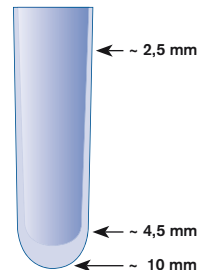


Order no. (order example):

Article no.	=	size
<b>6Y80</b>	=	<b>280</b>

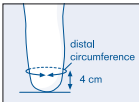


Liner care:  
daily



## Otto Bock TechnoGel-Liner (PUR)

<b>Article no.</b>	<b>6Y60</b>
<b>characteristics</b>	quick flow characteristics, good pressure distribution
<b>distal attachment</b>	with
<b>outside cover</b>	with
<b>socket design</b>	specific weight bearing socket or total surface weight bearing socket
<b>sizes</b> (see distal circumference)	<b>160 mm, 180 mm, 200 mm, 210 mm, 220 mm, 235 mm, 250 mm, 265 mm, 280 mm, 300 mm, 320 mm, 340 mm, 360 mm, 380 mm, 400 mm</b> also available as custom liner (6Y60=M)

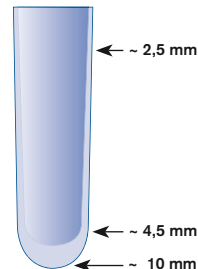


**Order no. (order example):**

Article no.	=	size
<b>6Y60</b>	=	<b>280</b>

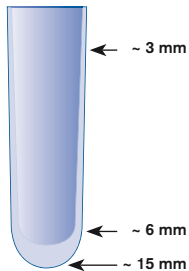
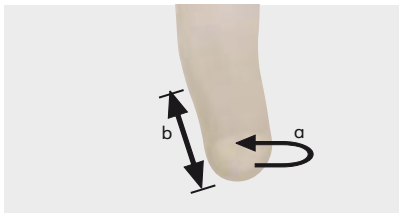


**Liner care:**  
minimum daily



## Otto Bock Profile Liner (PUR)

<b>Article no.</b>	<b>6Y510</b>
<b>characteristics</b>	anatomically shaped, good pressure distribution
<b>distal attachment</b>	without
<b>outside cover</b>	with (-5) or without
<b>socket design</b>	total surface weight bearing socket



**Pflegehinweise:**  
minimum daily



**Order no. (order example):**

Article no.	=	size x residual limb
<b>6Y510</b>	=	<b>210 x 125</b>

Circumference 4 cm from distal (a)	Residual limb length from knee center (b)		
	75 mm	125 mm	175 mm
200 mm	■		
210 mm		■	■
225 mm	■		
235 mm		■	■
250 mm	■		
260 mm		■	■
275 mm	■		
285 mm		■	■
300 mm	■		
310 mm		■	■
325 mm	■		

## Otto Bock Simplicity Liner (PUR)

<b>Article no.</b>	<b>6Y520</b>
<b>characteristics</b>	basic, cylindrical shape, good pressure distribution
<b>distal attachment</b>	without
<b>outside cover</b>	with (-5) or without
<b>socket design</b>	total surface weight bearing socket
<b>sizes</b> (see distal circumference)	<b>190 mm, 230 mm, 290 mm, 330 mm, 400 mm</b>

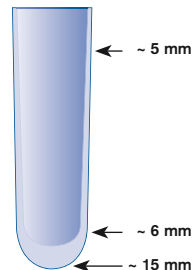
distal circumference  
4 cm

**Order no. (order example):**

Article no.	=	size
<b>6Y520</b>	=	<b>290</b>



**Liner care:**  
minimum daily



## Otto Bock Simplicity Tapered Liner (PUR)

Article no.	6Y522	6Y523
<b>characteristics</b>	basic, tapered shape, good pressure distribution	
<b>distal attachment</b>	without	without
<b>outside cover</b>	without	with (light blue)
<b>socket design</b>	total surface weight bearing socket	
<b>sizes</b> (see distal circumference)	190 mm, 210 mm, 230 mm, 250 mm, 290 mm, 310 mm	

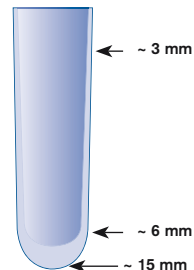
distal circumference  
4 cm

Order no. (order example):

Article no.	=	size
<b>6Y523</b>	=	<b>290</b>



**Liner care:**  
minimum daily



## Otto Bock Polyurethane Custom Liner

Otto Bock understands that your patients are unique with different challenges. Our Custom Liners are an excellent solution when a personalized fit is needed.

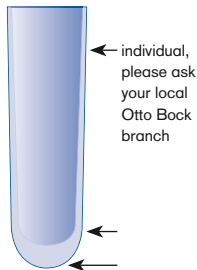
### Skin-friendly Polyurethane (PUR) Custom Liners

Our Custom polyurethane liners offer quick flow characteristics providing good pressure distribution and high shock absorption which are suitable for amputees with sensitive residual limbs or limbs with bony protuberances and/or scarring in low to high activity levels. Custom Polyurethane liners are mostly used in combination with a sealing sleeve and valve or Harmony® System.

6Y400	Custom PUR Liner from Cast and Measurement Sheet
6Y400=M	Custom PUR Liner from Measurements Only
6Y414	Harmony® Custom PUR Liner – providing the liner features which work best with the Harmony System
6Y416	ShapePlus Custom PUR Liner – for challenging shapes and sizes, such as scarring; undercuts; knee flexion >15-35°; large circumferences ( $\geq 80\text{cm}$ or 31") or long lengths (MPT to distal end $\geq 30\text{cm}$ or 12") i.e. Symes, Knee Disarticulations, etc.



**Liner care:**  
minimum daily



## Otto Bock AKquire Liner (PUR) (for trans-femoral fittings)

<b>Article no.</b>	<b>6Y540</b>
<b>characteristics</b>	basic liner for TF Harmony fitting
<b>distal attachment</b>	without
<b>outside cover</b>	without
<b>socket design</b>	specific weight bearing socket
<b>sizes</b> (see distal circumference)	<b>203 mm, 254 mm, 305 mm, 355 mm, 405 mm, 457 mm, 508 mm,</b>

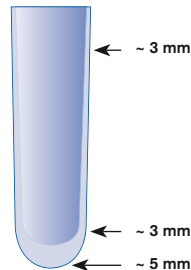
distal circumference  
4 cm

Order no. (order example):

Article no.	=	size
<b>6Y540</b>	=	<b>355</b>

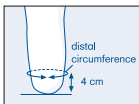


**Liner care:**  
minimum daily



## Otto Bock TPE Liner

Article no.	6Y90	6Y92
characteristics	<ul style="list-style-type: none"> <li>· high elasticity and moisturizing oil</li> <li>· internal distal elongation reduction</li> </ul>	<ul style="list-style-type: none"> <li>· high elasticity and moisturizing oil</li> </ul>
distal attachment	with	without
outside cover	with	with
socket design	total surface weight bearing	
sizes (see distal circumference)	200 mm, 250 mm, 280 mm, 320 mm, 360 mm	

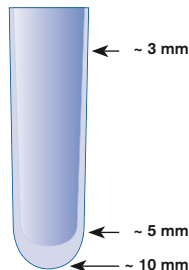


Order no. (order example):

Article no.	=	size
<b>6Y92</b>	=	<b>280</b>

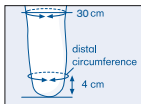


Liner care:  
daily

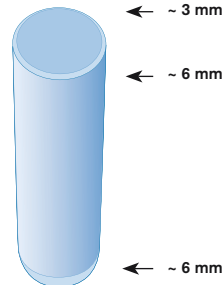


## Otto Bock Balance TPE Liner

Article no.	6Y93=L6	6Y93=C6																																							
<b>characteristics</b>	<ul style="list-style-type: none"> <li>· soft, flexible and thermo formable copolymer</li> <li>· thinner posterior wall (3 mm) for superior knee flexion</li> <li>· medical-grade mineral oil</li> </ul>																																								
<b>distal attachment</b>	with	without																																							
<b>outside cover</b>	with	with																																							
<b>socket design</b>	total surface weight bearing																																								
<b>sizes</b> (see distal circumference)	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">4 cm from distal end</th> <th colspan="2">30 cm from distal end</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>150</td> <td>260</td> <td>200</td> <td>330</td> </tr> <tr> <td>M</td> <td>180</td> <td>310</td> <td>230</td> <td>410</td> </tr> <tr> <td>MP</td> <td>200</td> <td>310</td> <td>330</td> <td>500</td> </tr> <tr> <td>L</td> <td>230</td> <td>350</td> <td>360</td> <td>560</td> </tr> <tr> <td>LP</td> <td>280</td> <td>430</td> <td>400</td> <td>630</td> </tr> <tr> <td>XL</td> <td>330</td> <td>500</td> <td>430</td> <td>690</td> </tr> </tbody> </table>			4 cm from distal end		30 cm from distal end		Min	Max	Min	Max	S	150	260	200	330	M	180	310	230	410	MP	200	310	330	500	L	230	350	360	560	LP	280	430	400	630	XL	330	500	430	690
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**Liner care:**  
daily



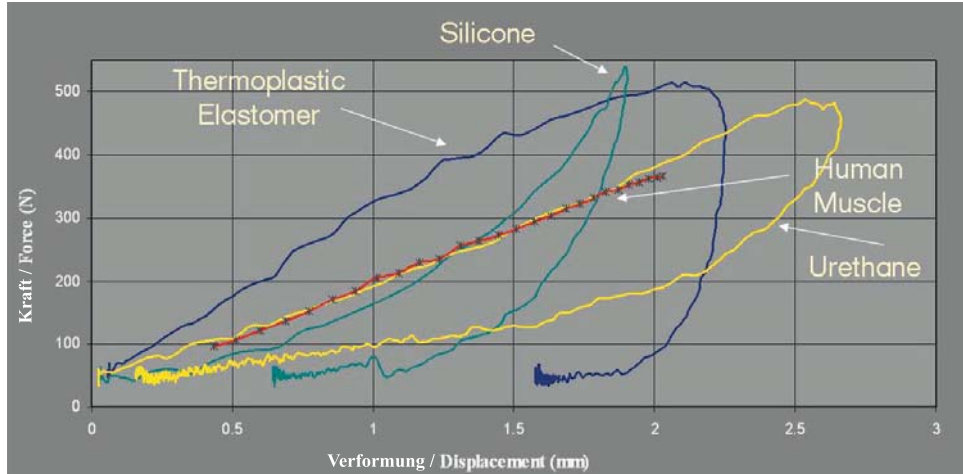
**Order no. (order example):**

Article no.	=	size
<b>6Y93</b>	=	<b>C6 - M</b>

## Accessories for Liners

<b>756L10</b>	<b>Liner Trimmer</b>
	<p>A cutting tool designed to trim and bevel the proximal edge of gel liners leaving a smooth edge.</p>
<b>719S7</b>	<b>Special Scissors for Cutting Synthetic Fabrics</b>
	<p>For cutting fabric-covered liners. The special coating reduces wear to create an especially durable surface for cutting. The friction generated by the cutting constantly replenishes the ceramic oxide layer. The scissors are easy to use, especially for modern, high-performance fabrics, because the coating reduces the sliding coefficient.</p>

## Material Types – comparative overlay, 1 Hz



*Journal of Prosthetics and Orthotics, Vol. 12, No. 1, 2000, pages 15–32*

## Silicone

### General Information

- Perform best with a shuttle lock
- Offer high durability
- Easy to clean

### Indications

- Residual limbs with good soft tissue coverage
- Low to moderate activity levels
- Use Specific Weight Bearing socket design



## Polyurethane

### General Information

- Perform best with a one-way valve and sealing sleeve or Harmony® System
- Offer excellent protection against socket forces
- Ability to flow maintains intimate and comfortable fit

### Indications

- Residual limbs of all types; especially sensitive, bony and/or scarred
- Low to high activity levels
- Use Total Surface Weight Bearing socket design



## Copolymer

### General Information

- Perform best with a one-way valve and sealing sleeve
- User-friendly and prosthetist-friendly
- Offer good protection against socket forces

### Indications

- Residual limbs of many types; especially dry skin
- Low to moderate activity levels
- Use Total Contact socket design







Otto Bock HealthCare GmbH  
[www.ottobock.com](http://www.ottobock.com)

