

# aortha® DRAPE

The Aortha Drape range consists of four materials in different stiffness/softness that are suitable for the production of prosthetic stump sockets.

The technician will choose the most suitable material for the application.

## Aortha Drape Stiff

### General features:

- ☒ Styrene based
- ☒ Clear
- ☒ High stiffness
- ☒ High impact resistance
- ☒ High fatigue resistance
- ☒ Activation temperature: 170°C

### Applications:

Transparent rigid check sockets



### Availability:

#### (Drape Stiff Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3250	343 x 343mm	8mm	Trans <input type="radio"/>
TA3251	343 x 343mm	10mm	Trans <input type="radio"/>
TA3252	343 x 343mm	12mm	Trans <input type="radio"/>
TA3253	343 x 343mm	15mm	Trans <input type="radio"/>
TA3256	400 x 400mm	8mm	Trans <input type="radio"/>
TA3257	400 x 400mm	10mm	Trans <input type="radio"/>
TA3258	400 x 400mm	12mm	Trans <input type="radio"/>
TA3259	400 x 400mm	15mm	Trans <input type="radio"/>

## Material Properties: Aortha Drape Stiff

### Thermoforming Conditions

Activation Temperature	170 (340)	°C (°F)
Activation Time - sheet thickness 6mm (15/64")	17	Min
Activation Time - sheet thickness 8mm (5/16")	20	Min
Activation Time - sheet thickness 10mm (3/8")	25	Min
Activation Time - sheet thickness 12mm (1/2")	28	Min
Activation Time - sheet thickness 15mm (19/32")	40	Min
Maximum shrinkage during activation	3.5	%
Maximum thermal shrinkage during cooling	0.8	%

### Mechanical Properties at 21°C (70°F)

Flexural modulus	1150	MPa
Aging: reduction of flexural modulus after UV-lighting for 210h.	0.7	%
Elastic modulus	1300	MPa
Tensile strength	26	MPa
Strain at break	250	%
Shore D hardness	68	
Impact resistance	no break	

### General Properties

Density	1.01	g.cm <sup>-3</sup>
Degradation temperature	300 (572)	°C (°F)
Colour	Transparent	
Odour	None	
Biocompatible	Yes	

#### Information:

The flexural modulus indicates the material stiffness in bending.

Aging: the indicated time (h) denotes the start of yellowing in an aging accelerator. 250h equals 1 year of solar energy in Belgium.

The elastic modulus indicates the material stiffness in tensile.

The tensile strength is the pulling force required to break the material.

The strain at break is the length increase of the material when stretched until failure.

The hardness indicates the resistance of the material to compression.

The impact resistance is the susceptibility of the material to fracture under stresses applied at high speeds.

The degradation temperature is determined in helium.

The biocompatibility is studied according to the guidelines of the International Organisation for standardisation 10993 - Biological Evaluation of Medical Devices:

- Primary Skin Irritation Study
- Delayed Dermal Contact Sensitisation Study
- Cytotoxicity Study

## Aortha Drape Soft

### General features:

- ☒ Ionomere based
- ☒ Semi-transparent
- ☒ Flexible but tough
- ☒ High fatigue resistance
- ☒ High mouldability at relatively low activation temperature: 150°C

### Applications:

Transparent rigid check sockets



### Availability:

#### (Drape Soft Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3266	343 x 343mm	4.7mm	Semi-Trans ●
TA3267	343 x 343mm	6.3mm	Semi-Trans ●
TA3268	343 x 343mm	8.5mm	Semi-Trans ●
TA3269	343 x 343mm	11.5mm	Semi-Trans ●
TA3270	400 x 400mm	4.7mm	Semi-Trans ●
TA3271	400 x 400mm	6.3mm	Semi-Trans ●
TA3272	400 x 400mm	8.5mm	Semi-Trans ●
TA3273	400 x 400mm	11.5mm	Semi-Trans ●

## Material Properties: Aortha Drape Soft

### Thermoforming Conditions

Activation Temperature	150 (300)	°C (°F)
Activation Time - sheet thickness 4.7mm (3/16")	12	Min
Activation Time - sheet thickness 6.3mm (1/4")	16	Min
Activation Time - sheet thickness 8.5mm (11/32")	19	Min
Activation Time - sheet thickness 11.5mm (29/64")	25	Min
Maximum shrinkage during activation	3.2	%
Maximum thermal shrinkage during cooling	4.1	%

### Mechanical Properties at 21°C (70°F)

Flexural modulus	350	MPa
Aging: reduction of flexural modulus after UV-lighting for 210h.	9.2	%
Elastic modulus	230	MPa
Tensile strength	25	MPa
Strain at break	470	%
Shore D hardness	65	
Impact resistance	no break	

### General Properties

Density	0.95	g.cm <sup>-3</sup>
Degradation temperature	320 (608)	°C (°F)
Colour	Transparent	
Odour	None	
Biocompatible	Yes	

#### Information:

The flexural modulus indicates the material stiffness in bending.

Aging: the indicated time (h) denotes the start of yellowing in an aging accelerator. 250h equals 1 year of solar energy in Belgium.

The elastic modulus indicates the material stiffness in tensile.

The tensile strength is the pulling force required to break the material.

The strain at break is the length increase of the material when stretched until failure.

The hardness indicates the resistance of the material to compression.

The impact resistance is the susceptibility of the material to fracture under stresses applied at high speeds.

The degradation temperature is determined in helium.

The biocompatibility is studied according to the guidelines of the International Organisation for standardisation 10993 - Biological Evaluation of Medical Devices:

- Primary Skin Irritation Study
- Delayed Dermal Contact Sensitisation Study
- Cytotoxicity Study

## Aortha Drape Extra Soft

### General features:

- ☒ EVA Based
- ☒ Semi-transparent
- ☒ Very flexible
- ☒ Excellent transparency
- ☒ Superb forming properties
- ☒ Activation temperature: 150°C

### Applications:

Highly ☒exible prosthetic



### Availability:

#### (Drape Extra Soft (Beige) Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3300	343 x 343mm	6mm	Beige ●
TA3301	343 x 343mm	8mm	Beige ●
TA3302	343 x 343mm	10mm	Beige ●
TA3303	343 x 343mm	12mm	Beige ●
TA3306	400 x 400mm	6mm	Beige ●
TA3307	400 x 400mm	8mm	Beige ●
TA3308	400 x 400mm	10mm	Beige ●
TA3309	400 x 400mm	12mm	Beige ●

### Availability:

#### (Drape Extra Soft (Semi-Transparent) Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3276	343 x 343mm	9mm	Semi-Trans ●
TA3277	343 x 343mm	12mm	Semi-Trans ●
TA3278	343 x 343mm	15mm	Semi-Trans ●
TA3280	343 x 343mm	9mm	Semi-Trans ●
TA3281	400 x 400mm	12mm	Semi-Trans ●
TA3282	400 x 400mm	15mm	Semi-Trans ●

## Material Properties: Aortha Drape Extra-Soft (Beige)

### Thermoforming Conditions

Activation Temperature	150 (300)	°C (°F)
Activation Time - sheet thickness 6mm (15/64")	11	Min
Activation Time - sheet thickness 8mm (5/16")	17	Min
Activation Time - sheet thickness 10mm (3/8")	18	Min
Activation Time - sheet thickness 12mm (1/2")	21	Min
Maximum shrinkage during activation	3.2	%
Maximum thermal shrinkage during cooling	4.9	%

### Mechanical Properties at 21°C (70°F)

Flexural modulus	75	MPa
Aging: reduction of flexural modulus after UV-lighting for 210h.	18.3	%
Elastic modulus	75	MPa
Tensile strength	24	MPa
Strain at break	800	%
Shore D hardness	43	
Impact resistance	no break	

### General Properties

Density	0.94	g.cm <sup>-3</sup>
Degradation temperature	200 (392)	°C (°F)
Colour	Beige	
Odour	Acid smell	
Biocompatible	Yes	

#### Information:

The flexural modulus indicates the material stiffness in bending.

Aging: the indicated time (h) denotes the start of yellowing in an aging accelerator. 250h equals 1 year of solar energy in Belgium.

The elastic modulus indicates the material stiffness in tensile.

The tensile strength is the pulling force required to break the material.

The strain at break is the length increase of the material when stretched until failure.

The hardness indicates the resistance of the material to compression.

The impact resistance is the susceptibility of the material to fracture under stresses applied at high speeds.

The degradation temperature is determined in helium.

The biocompatibility is studied according to the guidelines of the International Organisation for standardisation 10993 - Biological Evaluation of Medical Devices:

- Primary Skin Irritation Study
- Delayed Dermal Contact Sensitisation Study
- Cytotoxicity Study

## Material Properties: Aortha Drape Extra-Soft (Semi-Transparent)

### Thermoforming Conditions

Activation Temperature	150 (300)	°C (°F)
Activation Time - sheet thickness 6mm (15/64")	9	Min
Activation Time - sheet thickness 9mm (23/64")	11	Min
Activation Time - sheet thickness 12mm (1/2")	14	Min
Maximum shrinkage during activation	3.2	%
Maximum thermal shrinkage during cooling	1.6	%

### Mechanical Properties at 21°C (70°F)

Flexural modulus	30	MPa
Aging: reduction of flexural modulus after UV-lighting for 210h.	11.1	%
Elastic modulus	26	MPa
Tensile strength	10	MPa
Strain at break	800	%
Shore D hardness	33	
Impact resistance	no break	

### General Properties

Density	0.95	g.cm <sup>-3</sup>
Degradation temperature	230 (446)	°C (°F)
Colour	Semi-Transparent	
Odour	Acid smell	
Biocompatible	Yes	

#### Information:

The flexural modulus indicates the material stiffness in bending.

Aging: the indicated time (h) denotes the start of yellowing in an aging accelerator. 250h equals 1 year of solar energy in Belgium.

The elastic modulus indicates the material stiffness in tensile.

The tensile strength is the pulling force required to break the material.

The strain at break is the length increase of the material when stretched until failure.

The hardness indicates the resistance of the material to compression.

The impact resistance is the susceptibility of the material to fracture under stresses applied at high speeds.

The degradation temperature is determined in helium.

The biocompatibility is studied according to the guidelines of the International Organisation for standardisation 10993 - Biological Evaluation of Medical Devices:

- Primary Skin Irritation Study
- Delayed Dermal Contact Sensitisation Study
- Cytotoxicity Study

## Aortha Drape Extra Soft - Opaque Silicone

### General features:

- ☒ EVA based with Silicone additive
- ☒ Opaque in colour
- ☒ Very flexible
- ☒ Superb forming properties
- ☒ Activation temperature: 150°C

### Applications:

Highly ☒exible with very smooth touch for prosthetic sockets.



### Availability:

(Drape Extra Soft (Opaque Silicone) Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3285	343 x 343mm	6mm	Opaque <input type="radio"/>
TA3286	343 x 343mm	9mm	Opaque <input type="radio"/>
TA3287	343 x 343mm	12mm	Opaque <input type="radio"/>
TA3290	400 x 400mm	6mm	Opaque <input type="radio"/>
TA3291	400 x 400mm	9mm	Opaque <input type="radio"/>
TA3292	400 x 400mm	12mm	Opaque <input type="radio"/>



## Material Properties: Aortha Drape Extra-Soft Silicone

### Thermoforming Conditions

Activation Temperature	150 (300)	°C (°F)
Activation Time - sheet thickness 6mm (15/64")	9	Min
Activation Time - sheet thickness 9mm (23/64")	11	Min
Activation Time - sheet thickness 12mm (1/2")	14	Min
Maximum shrinkage during activation	3.2	%
Maximum thermal shrinkage during cooling	1.6	%

### Mechanical Properties at 21°C (70°F)

Flexural modulus	30	MPa
Aging: reduction of flexural modulus after UV-lighting for 210h.	/	%
Elastic modulus	27	MPa
Tensile strength	5.8	MPa
Strain at break	800	%
Shore D hardness	33	
Impact resistance	no break	

### General Properties

Density	0.95	g.cm <sup>-3</sup>
Degradation temperature	230 (446)	°C (°F)
Colour	White	
Odour	None	
Biocompatible	Yes	

#### Information:

The flexural modulus indicates the material stiffness in bending.

Aging: the indicated time (h) denotes the start of yellowing in an aging accelerator. 250h equals 1 year of solar energy in Belgium.

The elastic modulus indicates the material stiffness in tensile.

The tensile strength is the pulling force required to break the material.

The strain at break is the length increase of the material when stretched until failure.

The hardness indicates the resistance of the material to compression.

The impact resistance is the susceptibility of the material to fracture under stresses applied at high speeds.

The degradation temperature is determined in helium.

The biocompatibility is studied according to the guidelines of the International Organisation for standardisation 10993 - Biological Evaluation of Medical Devices:

- Primary Skin Irritation Study
- Delayed Dermal Contact Sensitisation Study
- Cytotoxicity Study

## Aortha Drape Supra Soft

### General features:

- ☒ EVA based
- ☒ Semi-transparent
- ☒ The softest sheet material available
- ☒ Optimum comfort for the patient
- ☒ Extremely high flexibility
- ☒ Excellent clarity
- ☒ Very soft surface
- ☒ Activation temperature: 150°C

### Applications:

Extremely flexible prosthetic sockets.



### Availability:

(Drape Stiff Prosthetic Squares)

Code	Sheet Size	Thickness	Colour
TA3312	400 x 400mm	10mm	Semi-Trans ●
TA3313	400 x 400mm	12mm	Semi-Trans ●
TA3314	400 x 400mm	15mm	Semi-Trans ●

## Material Properties: Aortha Drape Supra Soft

### Thermoforming Conditions

Activation Temperature	150 (300)	°C (°F)
Activation Time - sheet thickness 10mm (3/8")	14	Min
Activation Time - sheet thickness 12mm (1/2")	18	Min
Activation Time - sheet thickness 15mm (19/32")	22	Min
Maximum shrinkage during activation	3.2	%
Maximum thermal shrinkage during cooling	2.5	%

### Mechanical Properties at 21°C (70°F)

Flexural modulus	20	MPa
Aging: reduction of flexural modulus after UV-lighting for 210h.	19.8	%
Elastic modulus	19	MPa
Tensile strength	5.3	MPa
Strain at break	> 100	%
Shore D hardness	30	
Impact resistance	no break	

### General Properties

Density	0.95	g.cm <sup>-3</sup>
Degradation temperature	300 (572)	°C (°F)
Colour	Semi-Transparent	
Odour	Acid smell	
Biocompatible	Yes	

#### Information:

The flexural modulus indicates the material stiffness in bending.

Aging: the indicated time (h) denotes the start of yellowing in an aging accelerator. 250h equals 1 year of solar energy in Belgium.

The elastic modulus indicates the material stiffness in tensile.

The tensile strength is the pulling force required to break the material.

The strain at break is the length increase of the material when stretched until failure.

The hardness indicates the resistance of the material to compression.

The impact resistance is the susceptibility of the material to fracture under stresses applied at high speeds.

The degradation temperature is determined in helium.

The biocompatibility is studied according to the guidelines of the International Organisation for standardisation 10993 - Biological Evaluation of Medical Devices:

- Primary Skin Irritation Study
- Delayed Dermal Contact Sensitisation Study
- Cytotoxicity Study