Aconia 3D Multilayer Technology

. Excellent esthetic properties with integrated shade and seamless gradient
. Efficient, economical processing without staining procedure
. Simplify Zirconia material selection through wide indication application options

4 PARTS STRUCTURE

Incisal part	20%
Transition part	20%
Body part	50%
Cervical part	10%

What is 3D Multilayer?

1. **Gradient chroma:** Increasing chroma from incisal to cervical
2. **Gradient translucency:** Increasing translucency from cervical to incisal
3. **Gradient flexural strength:** Increasing flecural strength from incisal to cervical

3D Multilayer	Translucency	Flexural strength
Aconia TTML	49% ←→ 46%	600MPa ←→ 900MPa
Aconia SHTML	46% ←→ 43%	900MPa ←→ 1100MPa
Aconia STML	45% ←→ 42%	1100MPa ←→ 1200MPa

Aconia 3D Nesting Technology - Increased body part- 50%

Aconia 3D High Efficiency - Processing Procedure

3D Multilayer	Frequently-used Heights				
	14mm	16mm	18mm	20mm	22mm
20% Incisal part	2.8 mm	3.2 mm	3.6 mm	4 mm	4.4 mm
20% Transition part	2.8 mm	3.2 mm	3.6 mm	4 mm	4.4 mm
50% Body part	7 mm	8 mm	9 mm	10 mm	11 mm
10% Cervical part	1.4 mm	1.6 mm	1.8 mm	2.0mm	2.2mm

Multilayer — TT-ML

Create the best smile with highest esthetics

. Most natural appearance
. Perfect option for anterior esthetic restoration
. Fast and easy processing
. Creatively maximized efficiency and esthetics

Technical Data	
Flexural Strength (3-point)	600-900 Mpa
Translucency	46-49%
Vickers-hardness HV10	1300±50
Density	>3.00 (g/cm³)
Sintered Density	>6.02 (g/cm³)
Chemical Solubility	<50 (μg/cm³)
Radioactivity	<0.1 (Bq·g^{-1})
Fracture toughness	>3 (Mpa.m$^{1/2}$)
CTE(span25˚C~500˚C)	(10.5±0.5) *10^{-6}K^{-1}

Indication

Veneer | Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3 units)

Multilayer — SHT-ML

Create the best smile with highest flexibility

. All-in-one & One-for-all
. Seamless gradient in translucency, strength and shade
. Fast and easy processing
. Revolutionary combination of strength and translucency

Technical Data	
Flexural Strength (3-point)	900-1100 Mpa
Translucency	43-46%
Vickers-hardness HV10	1300±50
Density	>3.00 (g/cm³)
Sintered Density	>6.02 (g/cm³)
Chemical Solubility	<50 (μ g/cm³)
Radioactivity	<0.1 (Bq·g^{-1})
Fracture toughness	>5 (Mpa.m$^{1/2}$)
CTE(span25˚C~500˚C)	(10.5±0.5) *10^{-6}K^{-1}

Indication

Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3 units) | Full contour posterior bridge (3 units) | Full contour bridge (≤7 units) | Full contour bridge (≤14units)

Multilayer — ST-ML

Create the best smile with highest strength

· Perfect integration: strength+aesthetics
· 3D seamless gradient: Shade+Strength+Translucency
· Efficient processing without coloring procedure needed

Technical Data	
Flexural Strength (3-point)	1000-1200 Mpa
Translucency	42-45%
Vickers-hardness HV10	1300±50
Density	>3.00 (g/cm³)
Sintered Density	>6.02 (g/cm³)
Chemical Solubility	<50 (μ g/cm³)
Radioactivity	<0.1 (Bq·g^{-1})
Fracture toughness	>5.5 (Mpa.m$^{1/2}$)
CTE(span25˚C~500˚C)	(10.5±0.5) *10^{-6}K^{-1}

Indication

Inlay & Onlay | Full contour crown | Coping | Full contour anterior bridge (3 units) | Full contour posterior bridge (3 units) | Full contour bridge (≤7 units) | Full contour bridge (≤14units)

Sintering

Aconia SHT-ML ST-ML Sintering Parameters

Step	Initial Temp	Rate	Final Temp	Time
1	50°C	2.8°C/min	300°C	90min
2	300°C	5°C/min	1520°C	240min
3	1520°C	Holding	1520°C	90min
4	1520°C	-4.5°C/min	800°C	160min
5	800°C	Natural cooling		

Applied to single unit and bridges under 7 units(1-7units)

Aconia TT-ML Sintering Parameters

Step	Initial Temp	Rate	Final Temp	Time
1	50°C	3°C/min	300°C	83min
2	300°C	5°C/min	1530°C	236min
3	1530°C	Holding	1530°C	90min
4	1530°C	-4.5°C/min	800°C	151min
5	800°C	Natural cooling		

Applied to single unit and bridges under 3 units(1-3units)

Wide Shade Selection

Aconia Multilayer Gallery

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FDA CE

Aconia 3D MULTI

Seamless Gradient, Seamless Care

Vita16+3Bleach

TRADITIONAL | NEW Aconia 3D MULTI

01 ***3D** - Shade+Strength+Translucency*

02 ***CAM** - Nesting friendly*

03 ***Transition** - No layer lines*

BSM | Aconia®

Technology Creates the Best Smile

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