

Data Sheet

- 01 Product Name**
TriLor[®] Metal Free Dental System
- 02 Material Description**
Fiber Reinforced Composite (FRC)
- 03 Manufacturer**
Bioloren S.r.l.
Via Alessandro Volta 59
21047 Saronno (VA), Italy
Phone: +39 029 67 6703261
Email: info@bioloren.com
Web: www.bioloren.com
- 04 Exclusive Agency**
Harvest Dental Products, LLC
905 Columbia Street
Brea, California 92821
Phone: +1 714 674 7400
Email: hello@harvestdental.com
Web: www.harvestdental.com
- 05 Product Description**
TriLor[®] is a high-performance techno-polymer matrix with multi-directional glass fiber reinforcement for permanent and esthetic restorations on implants and removable partial dentures.
- 06 Product Character**
Biocompatible
Strong
Lightweight
- 07 Material Properties**
- | | | |
|-----------------------------|-----|--------------------|
| Tensile strength | 380 | MPa |
| Flexural strength | 540 | MPa |
| Tensile elongation | 2 | % |
| Flexural modulus | 26 | GPa |
| Tensile modulus | 26 | GPa |
| Compressive strength | 530 | MPa |
| Charpy impact strength | 300 | KJ/cm ² |
| Rockwell hardness (scale R) | 111 | HRR |
| Barcol hardness | 70 | |
| Shore D. hardness | 90 | |
| Density | 1,8 | g/cm ³ |
- 08 Biocompatibility Testing**
- | | |
|------------------------|-------------------------------|
| Genotoxicity | ISO 10993-3 |
| Acute toxicity | ISO 10993-11:2006 |
| Hypersensitivity | ISO 10993-10:2010 |
| Animal skin irritation | ISO 10993-10:2010 |
| Water absorption | ISO 10477-2009 |
| Cytotoxicity | ISO 10993-5;2009,10093-5:2000 |
- 09 Mechanical Testing**
- | | |
|--------------------|----------------|
| Flexural hardness | ISO 14125:2000 |
| Fracture toughness | ISO 14125:2008 |
- 10 Contraindications**
Insufficient oral hygiene.
Implant abutment fabrication.
Wall thickness less than 0.6 mm.
Connector dimensions less than 7mm²
Bridges on implants with more than 2 pontics.

Instructions for Use

- 11 Dental Indications**
TriLor[®] is intended for making copings, substructures or frameworks for permanent and transitional anterior or posterior crowns, bridgework and substructures that can be for either cemented or un-cemented restorations. Permanent implant supported frameworks (max 2pontics). Removable partial dentures (clasp supported).
- 12 Preventative Measure**
Wear protective dust mask and use suction.
- 13 Side Effects**
No known side effects if used as intended.
- 14 Framework Design – Crown & Bridge**
Guidelines for accurate and functional frameworks for definitive crown and bridge restorations on implants.
- | Minimum Thickness | Millimeters |
|---|------------------------------------|
| Crown & Bridge | |
| Wall thickness, single crown | 0.6 |
| Margin thickness, single crowns | 0.2 |
| Wall thickness, bridges | 0.6 |
| Margin thickness, bridges | 0.2 |
| Anterior | |
| Number of pontics | 2.0 |
| Connector cross section, thickness | 7.0 ² x 12 ² |
| Posterior | |
| Number of pontics | 1.0 |
| Connector cross section, thickness | 7.0 ² x 12 ² |
| Maximum possible framework and connector thickness should be the aim where not esthetically critical. | |
- 15 Framework Design RPD**
Guidelines for accurate and functional frameworks for removable partial dentures (RPD).
- | Minimum thickness | Millimeters |
|---------------------------|-------------|
| Palatal Plate | |
| Base Plate, thickness | 1.75 |
| Lingual Bar | |
| Lingual Bar, width | 4.0 |
| Lingual Bar, thickness | 1.75 |
| Lingual Rest, thickness | 1.0 |
| Retention Grid | |
| Retention Grid, thickness | 1.0 |
| Akers Clasp | |
| Clasp, base width | 2.0 |
| Clasp, base thickness | 1.25 |
| Clasp, tip width | 1.5 |
| Clasp, tip thickness | 0.75 |
| Occlusal Rest | |
| Occlusal Rest, Width | 2.0 |
| Occlusal Rest, thickness | 1.0 |

TriLor[®] Metal Free Dental System

Fiber Reinforced Composite



16. Milling Parameters

Compatible with 4 or 5 axis dental CNC machines.
Wet or dry technique.

Adhere to the CAM manufacturers pre-set milling parameters for HighPerformance Polymers. If none exists inquire manufacturers recommendation (i.e. PEEK, PMMA).

Milling Tools

Diamond or Tungsten Carbide
Diameter 2 mm – 1 mm – 0,6 mm

17. Bond and Cement

Esthetic Opportunities

Zirconia, Lithium Disilicate, PMMA and Composite.
For best results, adhere to material manufacturers supported bonding protocol.

TriLor[®] Treatment

Sandblast TriLor[®] contact areas w/ Al₂O₃ 110 µm/2 bar.
Clean surface with gentle pressurized steam.

All gingival contact areas should be sealed (GC OptiGlaze).

Zirconia Bonding

Sandblast intaglio surface with Al₂O₃ 110 µm/2 bar.
Clean surface with gentle pressurized steam.
Apply Zirconia Primer (mfr. recommended).
Apply Bonding Adhesive (mfr. recommended).
Bond with Dual Cure Cement (mfr. recommended).

Lithium Disilicate Bonding

Sandblast intaglio surface with Al₂O₃ 110 µm/2 bar.
Clean surface with gentle pressurized steam.
Etch intaglio surface, Hydrofluoric Acid 9%, 20 seconds.
Rinse for 20 seconds.
Post etch clean with Phosphoric Acid 32% for 20 seconds.
Rinse for 20 seconds.
Apply Silane and let evaporate for 5 minutes.
Apply Bonding Adhesive (mfr. recommended).
Bond with Dual Cure Cement (mfr. recommended).

Composite / PMMA – Milled Bonding

Sandblast intaglio surface with Al₂O₃ 110 µm/2 bar.
Clean surface with gentle pressurized steam.
Apply Bonding Adhesive (mfr. recommended).
Bond with Dual Cure Cement (mfr. recommended).

Composite / PMMA –Build-up Bonding

Sandblast intaglio surface with Al₂O₃ 110 µm/2 bar.
Clean surface with gentle pressurized steam.
Apply Bonding Adhesive (mfr. recommended).
Build-up Composite directly to TriLor[®].

18. Batch/ Lot Number Traceability

Batch numbers of TriLor[®] discs are located on rim label.
Document Lot No. to ensure traceability.

19. Preventative Measure

Wear protective dust max and use suction.

20. Side Effects

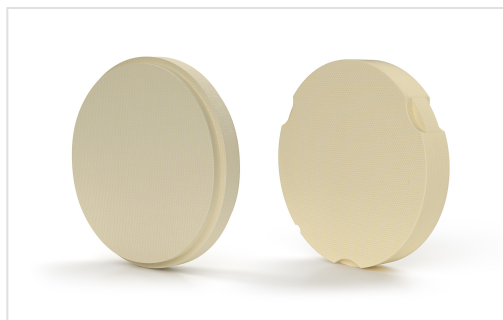
No known side effects if used as intended.

21. Storage

Avoid exposure to bright light.
Keep away from heat sources

22. Ordering information

50000-16	TriLor [®]	Open	98.5 x 16 mm
50000-20	TriLor [®]	Open	98.5 x 20 mm
50000-25	TriLor [®]	Open	98.5 x 25 mm
50005-16	TriLor [®]	Zirkon	95.0 x 16 mm
50005-20	TriLor [®]	Zirkon	95.0 x 20 mm
50005-25	TriLor [®]	Zirkon	95.0 x 25 mm



23. Contact Harvest Dental

If you would like to place an order, or need technical Support, please contact us using the info below.

Harvest Dental Products
800.706.7599
hello@harvestdental.com
www.harvestdental.com

Thank you for reading. We appreciate your time.