

CLEAR Ceramic™ Bracket

Flawless, pure Monocrystalline Sapphire Ceramic brackets

A solid single crystal, continuous edge to edge with no grain boundaries produces maximum optical clarity

Most of the ceramic brackets on the market are made out of either polycrystalline or monocrystalline sapphire. The primary difference between these two materials is their optical clarity. Monocrystalline alumina ceramic brackets have a more translucent (clearer) appearance whereas polycrystalline brackets are more whitish (tooth colored). This form of alumina has been selected because of its superior physical strength and favorable optical and aesthetic properties. Our ceramics are nonporous, resistant to staining and eliminate the absorption of odors.

Perfect material
Made from crystal clear and nonporous Monocrystalline Sapphire

Superior patient comfort
Ultra smooth & contoured shapes

High resistance
High resistance to staining and odor absorption

Unique bonding base
Partially coated Zirconia sphere base designed specifically to reduce the force needed for safe fracture-free debonding.

Slot design
Heat polished for added smoothness to produce optimal sliding mechanics

Low profile
Small and aesthetically pleasing to your patients plus an anatomical bracket base for easy bracket placement

Maximum tie-wing strength
Tie wings are designed for easy, reliable ligation and optimal fracture resistance

The Science behind bond strength

Micrographs show clearly our unique Double Fusion Method. The base of the bracket is coated with Zirconia powder, which produces Spheroid particles; each particle has a mass of tiny dendrites. These properties allow for a secure retention during the length of treatment and provide predictable and safe debonding at the end of treatment.



Correct material produces big advantages

Monocrystalline Sapphire alumina has a modulus of rupture greater than 35,000 psi (241.3 MPa). This strength is essential to producing a ceramic bracket without breakage issues. Standard ceramic brackets are rather bulky as they have to overcome the physical property limitations of other types of material, so they tend to be somewhat uncomfortable to the patient.

Monocrystalline Sapphire's strength enables us to offer a small and comfortable bracket for the patient. It offers our orthodontists the mechanical strength needed for predictable treatment.

CLEAR CERAMIC™ BRACKETS Roth*

| UPPER | Torque | Ang | In/Out | Width | U - R .018 | U - L .018 | U - R .022 | U - L .022 |
|--------------------|--------|-----|--------|-------|-------------|-------------|-------------|-------------|
| Central | 12° | 5° | 1.14 | 3.20 | 450-11 | 450-21 | 455-11 | 455-21 |
| Lateral | 8° | 9° | 1.46 | 2.90 | 450-12 | 450-22 | 455-12 | 455-22 |
| Cuspid | -2° | 9° | 0.52 | 3.50 | 450-13 | 450-23 | 455-13 | 455-23 |
| Cuspid w hook | -2° | 9° | 0.52 | 3.50 | 450-13/H | 450-23/H | 455-13/H | 455-23/H |
| 1. Bicuspid | -7° | 0° | 1.12 | 3.20 | 450-14/25 | 450-14/25 | 455-14/25 | 455-14/25 |
| 1. Bicuspid w hook | -7° | 0° | 1.12 | 3.20 | 450-14/15/H | 450-24/25/H | 455-14/15/H | 455-24/25/H |
| 2. Bicuspid | -7° | 0° | 1.12 | 3.20 | 450-14/25 | 450-14/25 | 455-14/25 | 455-14/25 |
| 2. Bicuspid w hook | -7° | 0° | 1.12 | 3.20 | 450-14/15/H | 450-24/25/H | 455-14/15/H | 455-24/25/H |

| LOWER | Torque | Ang | In/Out | Width | L - R .018 | L - L .018 | L - R .022 | L - L .022 |
|--------------------|--------|-----|--------|-------|------------|------------|------------|------------|
| Anterior | 0° | 0° | 1.44 | 2.83 | 450-31/42 | 450-31/42 | 455-31/42 | 455-31/42 |
| Cuspid | -11° | 7° | 0.80 | 3.50 | 450-43 | 450-33 | 455-43 | 455-33 |
| Cuspid w hook | -11° | 7° | 0.80 | 3.50 | 450-43/H | 450-33/H | 455-43/H | 455-33/H |
| 1. Bicuspid | -17° | 3° | 1.10 | 3.20 | 450-44 | 450-34 | 455-44 | 455-34 |
| 1. Bicuspid w hook | -17° | 3° | 1.10 | 3.20 | 450-44/H | 450-34/H | 455-44/H | 455-34/H |
| 2. Bicuspid | -21° | 6° | 1.10 | 3.20 | 450-45 | 450-35 | 455-45 | 455-35 |
| 2. Bicuspid w hook | -21° | 6° | 1.10 | 3.20 | 450-45/H | 450-35/H | 455-45/H | 455-35/H |

Cases-Single tray or 10-case tray

| 1 case .018 | 10 case .018 | 1 case .022 | 10 case .022 | Description |
|--------------|----------------|--------------|-----------------|---|
| 450-001 | 450-001/10 | 455-001 | 455-001/10 | CLEAR™ Bracket Upper + Lower 5-5 |
| 450-001/H | 450-001/H/10 | 455-001/H | 455-001/H/10 | CLEAR™ Bracket Upper + Lower 5-5 w. Hook on 3 |
| 450-001/H345 | 450001/H345/10 | 455-001/H345 | 455-001/H345/10 | CLEAR™ Bracket Upper + Lower 5-5 w. Hook on 3-4-5 |

CLEAR CERAMIC™ BRACKETS MBT (McLaughlin/Bennett/Trevisi)*

| UPPER | Torque | Ang | In/Out | Width | U - R .018 | U - L .018 | U - R .022 | U - L .022 |
|--------------------|--------|-----|--------|-------|-------------|-------------|-------------|-------------|
| Central | 17° | 4° | 1.06 | 3.20 | 460-11 | 460-21 | 466-11 | 466-21 |
| Lateral | 10° | 8° | 1.45 | 2.90 | 460-12 | 460-22 | 466-12 | 466-22 |
| Cuspid | 0° | 8° | 1.00 | 3.50 | 460-13 | 460-23 | 466-13 | 466-23 |
| Cuspid w hook | 0° | 8° | 1.00 | 3.50 | 460-13/H | 460-23/H | 466-13/H | 466-23/H |
| 1. Bicuspid | -7° | 0° | 1.42 | 3.20 | 460-14/25 | 460-14/25 | 466-14/25 | 466-14/25 |
| 1. Bicuspid w hook | -7° | 0° | 1.42 | 3.20 | 460-14/15/H | 460-24/25/H | 466-14/15/H | 466-24/25/H |
| 2. Bicuspid | -7° | 0° | 1.42 | 3.20 | 460-14/25 | 460-14/25 | 466-14/25 | 466-14/25 |
| 2. Bicuspid w hook | -7° | 0° | 1.42 | 3.20 | 460-14/15/H | 460-24/25/H | 466-14/15/H | 466-24/25/H |

| LOWER | Torque | Ang | In/Out | Width | L - R .018 | L - L .018 | L - R .022 | L - L .022 |
|--------------------|--------|-----|--------|-------|------------|------------|------------|------------|
| Anterior | -6° | 0° | 1.50 | 2.83 | 460-41/42 | 460-31/32 | 466-41/42 | 466-31/32 |
| Cuspid | 0° | 3° | 0.88 | 3.50 | 460-43 | 460-33 | 466-43 | 466-33 |
| Cuspid w hook | 0° | 3° | 0.88 | 3.50 | 460-43/H | 460-33/H | 466-43/H | 466-33/H |
| 1. Bicuspid | -12° | 2° | 1.72 | 3.20 | 460-44 | 460-34 | 466-44 | 466-34 |
| 1. Bicuspid w hook | -12° | 2° | 1.72 | 3.20 | 460-44/H | 460-34/H | 466-44/H | 466-34/H |
| 2. Bicuspid | -17° | 2° | 1.72 | 3.20 | 460-45 | 460-35 | 466-45 | 466-35 |
| 2. Bicuspid w hook | -17° | 2° | 1.72 | 3.20 | 460-45/H | 460-35/H | 466-45/H | 466-35/H |

Cases-Single tray or 10-case tray

| 1 case .018 | 10 case .018 | 1 case .022 | 10 case .022 | Description |
|--------------|-----------------|--------------|-----------------|---|
| 460-001 | 460-001/10 | 466-001 | 466-001/10 | CLEAR™ Bracket Upper + Lower 5-5 |
| 460-001/H | 460-001/H/10 | 466-001/H | 466-001/H/10 | CLEAR™ Bracket Upper + Lower 5-5 w. Hook on 3 |
| 460-001/H345 | 460-001/H345/10 | 466-001/H345 | 466-001/H345/10 | CLEAR™ Bracket Upper + Lower 5-5 w. Hook on 3-4-5 |