



 radiance<sup>®</sup>  
... is confidence ...



# Clear Polished Sapphire

Your patients are asking for it and you need a real cosmetic option. Every Radiance bracket is a polished jewel, made from a single crystal of pure grown sapphire, the second hardest mineral known to man. Each crystal is honed and then heat polished into a superbly smooth, incredibly clear, and astoundingly strong bracket. Once bonded, Radiance is nearly invisible on the tooth.

Compared to Clarity\* and other polycrystalline brackets, monocrystalline Radiance is startlingly clear.



Radiance

Clarity\*



*Heat polishing is the key to making Radiance a stronger and more fracture resistant ceramic bracket. Our proprietary heat treatment involves creating enough surface energy to allow the process to smooth any micro voids or flaws (see photos below). The result is a monocrystalline bracket that resists torque fracture by an average of 300% over polycrystalline ceramic brackets.*

*"I love them, they are so smooth!  
I almost feel like I don't have  
braces on my teeth."*

*Megan, Chicago, IL*



**Bracket surface  
before heat polishing**



**Bracket surface  
after heat polishing**

# Predictable Debonding

Bond strength with predictable debonding is essential in any bracket and Radiance is the first ceramic bracket to achieve true balance. With Radiance, brackets stay where you put them until you are ready to debond. Then the brackets remove easily without special instruments. The secret is in the bonding base. The Radiance bracket's patented Quad-Matte™ base allows for a strong bond in the center to hold the bracket in place, but a weaker bond on the outside to allow for easy debonding.



The patented Radiance mechanical lock base shown here at 24X magnification (left) and at 1000X magnification (below) allows for a strong bond in the center of the pad and a weaker bond on the edges for easy and predictable debonding.



*"My patients are thrilled with the aesthetics. I am amazed at the unmatched ease in debonding. There is no doubt in my mind that the Radiance bracket is the best ceramic bracket on the market."*

Dr. Todd Fischer, Jacksonville, NC

STEP 1: Clear all flash when bonding and prior to debonding.

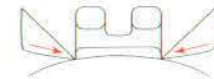


STEP 2: Place pin and ligature cutter on the mesial and distal sides of Radiance and gently squeeze.



## DEBONDING TIP

While any debonding instrument can safely remove Radiance brackets from enamel, a specially designed ceramic bracket debonding instrument is available to ensure an optimal debonding experience.



The blades of Omega Ceramic Bracket Debonding Pliers (#001-301E) are parallel when placed along the mesial and distal sides of ceramic brackets. Only the upper surfaces of the tips are sharpened, focusing the debonding force at the bracket/enamel interface.

# Clinical Benefits

## Fracture Resistance

Radiance is designed to be the strongest possible ceramic bracket. Monocrystalline formation gives Radiance a solid core structure as opposed to a strand structure in polycrystalline. A special heat treat process is then used to seal the bracket and ensure no fissures exist in the surface structure. The result is a remarkably strong bracket that is far less likely to fail during treatment.

## Strong and Easy to Tie

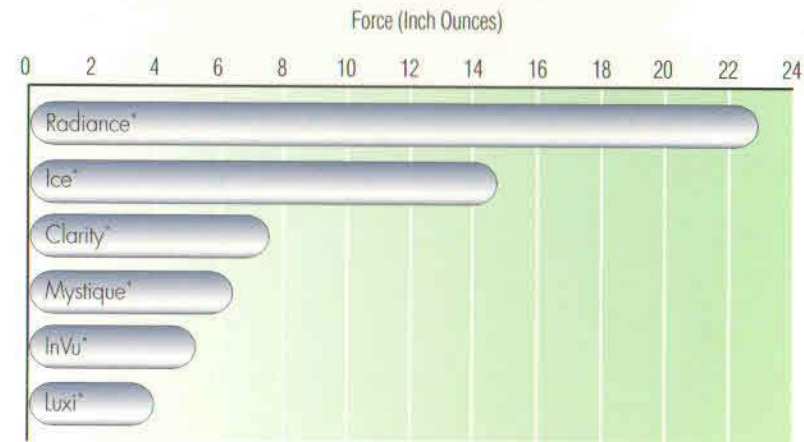
A chain is only as strong as its weakest link; that is why special care was placed in developing the tie wings. Radiance tie wings are designed with a smooth radius on the base of the wing to reduce fracture. To make it easier to tie, the under tie wing space was enlarged for easy placement of elastics, ligatures, and chain.

## Rotational Control

Controlling rotation is a paramount concern for orthodontists, so our engineers took advantage of the cosmetic properties of Radiance and made the maxillary centrals and cuspids with optimum mesial-distal width. The clinician has greater rotational control of anterior teeth with no cosmetic loss for the patient.

## Easy to Place

In order to help you place Radiance crystal clear brackets accurately, a special food grade colorant is applied to the crosshairs of the bracket. Once the brackets are in position, simply ask the patient to brush and the color rinses away.



## Slot Torsional Strength

(Refer to [www.americanortho.com](http://www.americanortho.com) for chart data)

	Central	Cuspid
Radiance*	.140	.130
Ice*	.125	.125

## Mesial-Distal Dimensions

*"Radiance is the best ceramic bracket I have ever used. It incorporates the best features of all the other ceramics into one superior ceramic bracket."*

*Dr. Alan Papert, United Kingdom*





## Patient Benefits

### Smooth Comfort

As much as you will love treating with Radiance, your patients will love wearing them. Radiance is smooth to the touch making them safe and comfortable for the patient.

### Invisible

Just place the brackets and watch your patient smile. Patients concerned about their appearance in metal brackets can now take comfort that their braces are virtually invisible, giving them confidence in work and social situations.

### No Staining

Not only do the brackets look great, they stay that way. Radiance's monocrystalline structure and highly polished surface serve as barriers to undesirable staining elements.

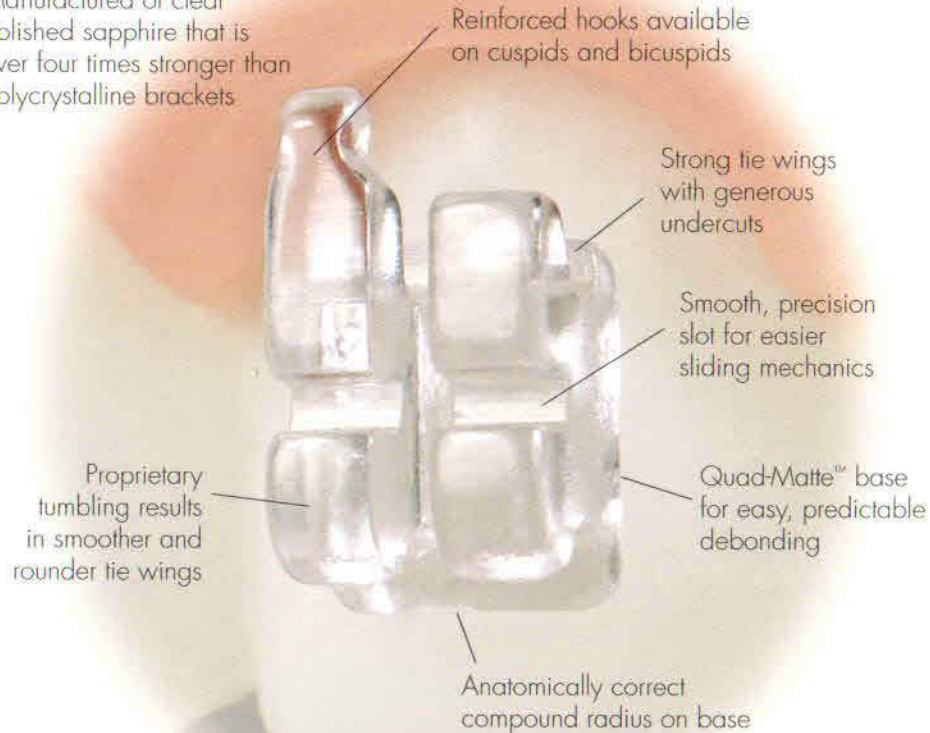
*"I love Radiance braces. They are invisible, smooth, and let me live my life while straightening my teeth."*

*Carl, Howards Grove, WI*

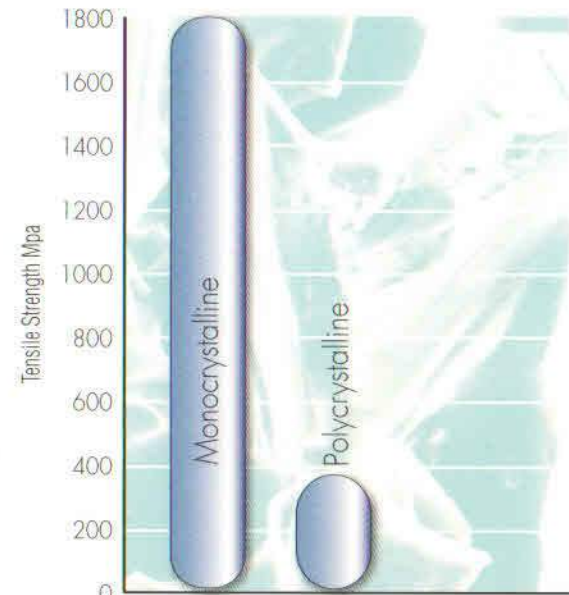
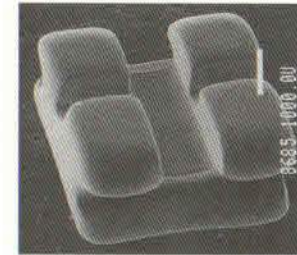


# Invisible Elegance

Manufactured of clear polished sapphire that is over four times stronger than polycrystalline brackets.



Compared to Ice\* brackets, Radiance tie wings are smoother and rounder due to a proprietary tumbling process as seen in this SEM 24X photo (right).



Ceramic Material Strength  
(Refer to [www.americanortho.com](http://www.americanortho.com) for chart data)



\*Ice is a trademark of Ormco, Clarity is a trademark of 3M Unitek, Mystique is a trademark of GAC International, InVu is a trademark of TP Orthodontics, Luxi is a trademark of Rocky Mountain Orthodontics. Radiance is a trademark of American Orthodontics.

## A Roth\* System

Maxillary	Torq	Ang	Rot	M-D	R/L	.018		.022	
						No hook	With hook	No hook	With hook
Central	+12	+5	0	.140	R L	002-7201 002-7202		002-7221 002-7222	
Lateral	+8	+9	0	.120	R L	002-7203 002-7204		002-7223 002-7224	
Cuspid	-2	+10	4 anti	Hook D-G .130	R L	002-7205 002-7206	002-7205B 002-7206B	002-7225 002-7226	002-7225B 002-7226B
	-2	+7	4 anti	Hook D-G .130	R L		002-7207B 002-7208B		002-7227B 002-7228B
1st and 2nd Bicuspid	-7	0	0	Hook D-G .130	R L	002-7109 002-7109	002-7110B 002-7111B	002-7139 002-7139	002-7140B 002-7141B
<b>Mandibular</b>									
Anteriors	0	0	0	Bevel occlusal.110	R/L	002-7210		002-7230	
Cuspid	-11	+7	0	Hook D-G .130	R L	002-7211	002-7211B	002-7231	002-7231B
						002-7212	002-7212B	002-7232	002-7232B
1st Bicuspid	-17	0	0	Hook D-G .130	R L	002-7213	002-7214B	002-7233	002-7234B
						002-7213	002-7215B	002-7233	002-7235B
2nd Bicuspid	-22	0	0	Hook D-G .130	R L	002-7216	002-7217B	002-7236	002-7237B
						002-7216	002-7218B	002-7236	002-7238B

## A McLaughlin, Bennett, Trevisi\* System

Maxillary	Torq	Ang	Rot	M-D	R/L	.018		.022	
						No hook	With hook	No hook	With hook
Central	+17	+4	0	.140	R L	002-7101 002-7102		002-7131 002-7132	
Lateral	+10	+8	0	.120	R L	002-7103 002-7104		002-7133 002-7134	
Cuspid	0	+8	0	Hook D-G .130	R L	002-7105 002-7106	002-7105B 002-7106B	002-7135 002-7136	002-7135B 002-7136B
	-7	+8	0	Hook D-G .130	R L	002-7107 002-7108	002-7107B 002-7108B	002-7137 002-7138	002-7137B 002-7138B
1st and 2nd Bicuspid	-7	0	0	Hook D-G .130	R L	002-7109 002-7109	002-7110B 002-7111B	002-7139 002-7139	002-7140B 002-7141B
<b>Mandibular</b>									
Anteriors	-6	0	0	Bevel occlusal.110	R/L	002-7112		002-7142	
Cuspid	0	+3	0	Hook D-G .130	R L	002-7113	002-7113B	002-7143	002-7143B
						002-7114	002-7114B	002-7144	002-7144B
1st Bicuspid	-6	+3	0	Hook D-G .130	R L	002-7115	002-7115B	002-7145	002-7145B
						002-7116	002-7116B	002-7146	002-7146B
2nd Bicuspid	-12	+2	0	Hook D-G .130	R L	002-7117	002-7117B	002-7147	002-7147B
						002-7118	002-7118B	002-7148	002-7148B
2nd Bicuspid	-17	+2	0	Hook D-G .130	R L	002-7119	002-7119B	002-7149	002-7149B
						002-7120	002-7120B	002-7150	002-7150B

Bracket Color Identification: A special food grade colorant is applied to crosshairs for easy identification



## An Alexander\* System

Maxillary	Torq	Ang	Rot	Design	M-D	R/L	.018	
							No hook	With hook
Central	+12	+5	0	Twin	.140	R L	002-7551 002-7552	
Lateral	+8	+9	0	Twin	.120	R L	002-7553 002-7554	002-7553B 002-7554B
Cuspid	-3	+10	0	Single Wing	.140	R L	002-7555 002-7556	
1st Bicuspid	-6	0	0	Single Wing	.140	R L	002-7557 002-7558	
2nd Bicuspid	-8	+4	0	Single Wing	.140	R L	002-7559 002-7560	

\*The American Orthodontics version of the Roth System is not claimed to be a duplication of any other, nor does American Orthodontics imply that it is endorsed in any way by Dr. Roth.

\*The American Orthodontics version of the McLaughlin, Bennett, Trevisi System is not claimed to be a duplication of any other, nor does American Orthodontics imply that it is endorsed in any way by Drs. McLaughlin, Bennett, or Trevisi.

\*Dr. Wick Alexander is proud to endorse Alexander prescription brackets from American Orthodontics.





Clear Polished Sapphire  
Predictable Debonding  
Fracture Resistance  
Ease of Tying  
Greater Control  
Smooth Comfort  
No Staining  
Smooth Monocrystalline Slot  
Confidence

Made in USA



AMERICAN  
ORTHODONTICS

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