

## COMPETITIVE COMPARISON

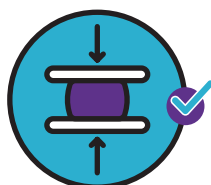
# Core-Flo™ DC & Core-Flo™ DC Lite VS

Composite Resin Core Build-Up

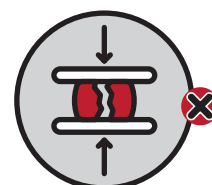
## Resin-Modified Glass Ionomer Core Build-Up Materials

### 1 High Compressive Strength

BISCO's Core-Flo DC & DC Lite have high compressive strength which is important when choosing a core material. A strong, core build-up material can better withstand "deformation and fracture, provide more equitable stress distribution, greater stability, and greater probability of clinical success."<sup>2</sup>



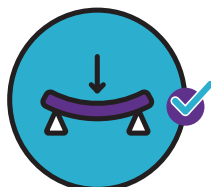
Compressive Strength



Compressive Strength

### 2 High Flexural Strength

BISCO's Core-Flo DC & DC Lite have high flexural strength, allowing for a more fracture resistant restoration.<sup>1</sup>



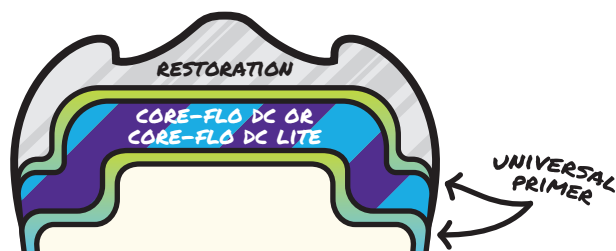
Flexural Strength



Flexural Strength

### 3 High Bond Strength

BISCO's Core-Flo DC & DC Lite, when paired with Universal Primer™, have high shear bond strengths to dentin, impacting the core build-up procedure by lowering the possibility of dislodgement.<sup>5</sup>



### Low Compressive Strength

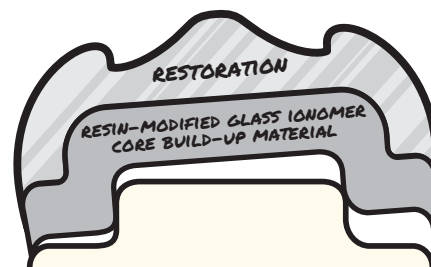
RMGI's have low compressive strength, which increases the possibility of clinical failure due to fracture or deformation through intraoral forces.<sup>4</sup>

### Low Flexural Strength

RMGIs have lower flexural strength, which may lead to breakdown and fracture in stress bearing restorations.<sup>4</sup>

### Low Bond Strength

RMGI's have lower shear bond strength, which can affect the retention of the material.<sup>3</sup>



1. Jayanthi, N., & Vinod, V. (2013, September). Comparative evaluation of compressive strength and flexural strength of conventional core materials with nanohybrid composite resin core material an in vitro study. Journal of Indian Prosthodontic Society. Retrieved March 2, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3732736/>
2. Kumar, G., & Shivrayan, A. (2015). Comparative study of mechanical properties of direct core build-up materials. Contemporary clinical dentistry. Retrieved March 2, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4319337/>
3. McEwen, K., Finkelman, M., Larsen, C., Harsono, M., Park, A., Tuttle, R. D., & Kugel, G. (2013, March 23). Dentin shear bond strength of RMGI cements. Dentin Shear Bond Strength of RMGI Cements IADR Abstract Archives. Retrieved June 22, 2022, from <https://iadr.abstractarchives.com/abstract/13iags-174499/dentin-shear-bond-strength-of-rmgi-cements>
4. Singh, G., Agrawal, S., Bhatt, A., & Boruah, L. C. (n.d.). Resin based core BUIL UP materials - A Review. Retrieved March 3, 2022, from <https://www.ipinnovative.com/journal-article-file/9826>
5. Data on file