Corundum (AL203) COATED GEMSTONE

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Sapphire (Corundum) Coated Gemstone Cross Section

COATING MATERIAL LAYER
(Al₂O₃) 120 - 140 NM Thickness

SUBSTRATE MATERIAL
C-S-Fe-Ca-Co-Ni-Y-Zr-Gd-He

Not to Scale
SAPPHIRE CORUNDUM (AL203) COATED GEMSTONE

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present invention claims the benefit of U.S. Patent Application Ser. No. 61/301,352, filed February 4, 2010, the disclosure of which is incorporate herein in its entirety.

FIELD OF THE INVENTION

[0002] The present invention relates generally to gemstone simulants and, more particularly, a sapphire coated diamond simulant.

BACKGROUND OF THE INVENTION

[0003] Diamonds have historically been the most popular of all gemstones, and are frequently used in wedding bands, engagement rings, pendants, earrings, and other types of jewelry. Because of their popularity and additional market forces, diamonds are generally more expensive than other gemstones. As a result, diamond simulants that simulate the optical properties of diamonds but at a fraction of the cost are becoming increasingly popular. Additionally, with the growing awareness of conflict diamonds, there is increased consumer apprehension regarding the origin of diamonds and thus increased consumer reluctance to purchase authentic diamonds. As such, there has been a growing