



DiamondNexusLabs.com

**Comparison of Diamond
Nexus Labs Created
Ruby to Natural
Mined Ruby**



PROPERTY	CREATED RUBY	MINED RUBY
Hardness	9.0	9.0
Internal Flaws	Never	Almost Always
Cut	Always perfect	Varies - excellent to poor
Color	Excellent "Pigeon Blood Red"	Varies widely, excellent to poor
Clarity	Flawless to near Flawless	Flawless (rare) to very included (common)
Refraction	1.762-1.799	1.762-1.799
Chemical composition	Cr ³⁺ - Al ₂ O ₃	Cr ³⁺ - Al ₂ O ₃
Specific Gravity	4.00-4.03	4.00-4.03
Optical Character	Uniaxial-Negative	Uniaxial-Negative
Melting Point	2940°F	2940°F
Lifetime Perf. Guarantee	Yes	No
Lifetime Loss Guarantee	Yes	No
Cost per Carat	\$99.00	\$2,500 and up

**Comparison of Diamond
Nexus Labs Created
Emerald to Natural
Mined Emerald**



PROPERTY	CREATED EMERALD	MINED EMERALD
Hardness	8.0	8.0
Internal Flaws	Never	Almost Always
Cut	Always perfect	Varies - excellent to poor
Color	Excellent "Deep Colombian"	Varies widely, excellent to poor
Clarity	Flawless to near Flawless	Flawless (rare) to very included (common)
Refraction	1.576-1.578	1.576-1.578
Birefringence	0.006-0.007	0.006-0.007
Chemical composition	Cr ³⁺ - Be ₃ Al ₂ Si ₆ O ₁₈	Cr ³⁺ - Be ₃ Al ₂ Si ₆ O ₁₈
Specific Gravity	2.68-2.69	2.68-2.69
Optical Character	Uniaxial-Negative	Uniaxial-Negative
Melting Point	2570°F	2570°F
Lifetime Perf. Guarantee	Yes	No
Lifetime Loss Guarantee	Yes	No
Cost per Carat	\$99.00	\$2,500 and up

**Comparison of Diamond
Nexus Labs Created
Sapphire to Natural
Mined Sapphire**



PROPERTY	CREATED SAPPHIRE	MINED SAPPHIRE
Hardness	9.0	9.0
Internal Flaws	Never	Almost Always
Cut	Always perfect	Varies - excellent to poor
Color	Excellent "Malaccan Blue"	Varies widely, excellent to poor
Clarity	Flawless to near Flawless	Flawless (rare) to very included (common)
Refraction	1.766	1.766
Chemical composition	Fe ²⁺ , Ti ⁴⁺ - Al ₂ O ₃	Fe ²⁺ , Ti ⁴⁺ - Al ₂ O ₃
Specific Gravity	4.00-4.03	4.00-4.03
Optical Character	Uniaxial-Negative	Uniaxial-Negative
Melting Point	2940°F	2940°F
Lifetime Perf. Guarantee	Yes	No
Lifetime Loss Guarantee	Yes	No
Cost per Carat	\$99.00	\$1,500 and up