

# Ruby & Sapphire Reference Chart

GEMPORTS (The Colored Gemstone Report) is a collaborative initiative by four leading organizations committed to expanding the global colored gemstones market. This innovative effort leverages industry expertise to establish a unified framework for pricing, promoting transparency, and fostering international growth. The GEMPORTS aims to streamline transactions and build confidence among stakeholders, providing a comprehensive reference point for the valuation of colored gemstones and bridging connections between end-users.

In an era of valuing transparency, The GEMPORTS emerges as a trusted beacon, reflecting a commitment to ethical practices, fair trade, and the overall enhancement of the industry's reputation. As the GEMPORTS evolves, it holds the potential to become an indispensable tool shaping the future of the colored gemstones market worldwide.



## Gems & Jewelry Trade Association of China (GAC)

Established in 1991, GAC is a non-profit organization in the Chinese gems and jewelry industry. With nearly 3,000 company members and 18 commissions overseeing various industry sectors, including a representative office, GAC actively engages with government departments to advocate for industry-friendly policies.



## National Gemstone Testing Center (NGTC), China

As the foremost authority institute in gemstone testing and identification in China, NGTC's mission is to safeguard the legitimate rights and interests of consumers while actively supporting the high-quality and sustainable development of the gems and jewelry industry.



The Gems, Jewelry, and Precious Metal  
Confederation of Thailand

## The Gems, Jewelry, and Precious Metal Confederation of Thailand (GJPCT)

The association was formed through the collaboration of 16 prominent gem and jewelry associations in Thailand, with the aim of developing and elevating Thailand's gem and jewelry industry to be the world's Gems and Jewelry hub.



Thai Gem and Jewelry  
Traders Association

## Thai Gem and Jewelry Traders Association (TGJTA)

The association with the highest number of members in ASEAN, its members collectively contribute up to 90% of Thailand's total exports of gems and jewelry. TGJTA also a pioneer in establishing the outstanding B2B "Thailand Gems and Jewelry Fair".

GEMPORTS | Ruby

THE QUALITY AND VALUE OF A RUBY DEPENDS ON THE COMBINATION OF THE FOLLOWING CRITERIA :

CARAT	<p>A ruby's weight is measured in carats. 5 carats = 1 gram. Being equal, the greater the carat weight, the rarer the ruby and therefore greater its value . Illustrated below is the approximate appearance of a well cut oval shaped ruby for a given carat weight included in the Gemports.</p> <div></div> <div>1.002.003.005.0010.00</div>										
COLOR	<p>Color originates in the mind of the observer, making it a matter of personal reference. Rubies vary in color depending mainly upon their chromium and iron content. Therefore, rubies from different countries* and mines have different predominant colors. Primarily red, rubies range from brownish and purplish shades to orangish and pinkish ones. A natural color will always have a greater value than an equivalent color obtained by heating or other processes. Below are illustrations of two master sets for ruby color grading, one featuring red shades and the other showcasing purplish shades.</p> <div></div> <div>Deep RedVivid RedIntense RedRedDeep Purple RedVivid Purple RedIntense Purple RedPurple Red</div> <p>* Main countries where rubies are mined: Afghanistan, Cambodia, India, Kenya, Madagascar, Myanmar (Burma), Pakistan, Sri Lanka (Ceylon), Tajikistan, Tanzania, Thailand (Siam), Vietnam, and Mozambique.</p> <p>Inks and paper are subject to aging and differences in printing techniques. Therefore, these colors shall not be used for color references.</p>										
ORIGIN	<p>Ruby's origin significantly influences its value and desirability. Some mines are preferred, even within the same country. Ask for the origin of the ruby before you purchase however keep in mind that your final judgement should be based on your own criteria and purpose. Concentrate of the "merits" and "characteristics" of the ruby with view to its physical and optical and individual beauty of the stone. The reference prices indicate rubies from Myanmar (Burma) and other localities, respectively.</p>										
TREATMENT	<p>Rubies are often treated to enhance its color and clarity for improving its value and appearance. Inquire about treatments like heating, irradiation, oiling, dying, fracture filling or any combination of processes for the ruby you're interested in. Seek guidance from a reputable expert. Natural, untreated rubies command higher appreciation and are more expensive. However, some traditional treatments, like heating for rubies, are acceptable.</p>										
CLARITY	<p>The clarity of a ruby is evaluated based on the number, size and position of inclusions which are natural materials present in the stone. They reflect its fascinating geological aspects. There maybe presence of fissures, fractures, and cavities, impacting the ruby's appearance both internally and externally. The clarity of rubies is classified into four levels to account for differences: excellently clean(C1), very clean(C2), clean (C3), and ordinary (C4).</p> <div></div> <div>C1C2C3C4</div> <table><tr><th colspan="2">Clarity Level</th></tr><tr><td>excellently clean</td><td>C1</td></tr><tr><td>very clean</td><td>C2</td></tr><tr><td>clean</td><td>C3</td></tr><tr><td>ordinary</td><td>C4</td></tr></table>	Clarity Level		excellently clean	C1	very clean	C2	clean	C3	ordinary	C4
Clarity Level											
excellently clean	C1										
very clean	C2										
clean	C3										
ordinary	C4										
BRILLIANCE	<p>Brilliance in a cut ruby refers to how much light the gem reflects from inside. When you rotate the stone, you might notice a flicker phenomenon caused by the reflection or internal reflection of light within the ruby. This play of light, especially visible from the crown, adds to the gem's beauty and overall appeal. The brilliance of rubies is classified into four levels based on the proportion of brilliance to the crown area and the brightness of the brilliance: excellent (B1), very good (B2), good (B3), and ordinary (B4).</p> <div></div> <div>B1B2B3B4</div> <div>excellentvery goodgoodordinary</div> <table><tr><th colspan="2">Brilliance Level</th></tr><tr><td>excellent</td><td>B1</td></tr><tr><td>very good</td><td>B2</td></tr><tr><td>good</td><td>B3</td></tr><tr><td>ordinary</td><td>B4</td></tr></table>	Brilliance Level		excellent	B1	very good	B2	good	B3	ordinary	B4
Brilliance Level											
excellent	B1										
very good	B2										
good	B3										
ordinary	B4										
CUT	<p>Cut refers to how well angles, proportions, symmetry, and polish are handled in rubies, impacting light reflection and brilliance. Various shapes are crafted to maximize the beauty from the natural rough, as illustrated below.</p> <div></div> <div>OvalCushionPearHeartRoundTrilliantMarquiseEmeraldPrincess</div>										

GEMPORTS | Sapphire

THE QUALITY AND VALUE OF A SAPPHIRE DEPENDS ON THE COMBINATION OF THE FOLLOWING CRITERIA:

CARAT	<p>A sapphire's weight is measured in carats. 5 carats = 1 gram. Being equal, the greater the carat weight, the rarer the sapphire and therefore greater its value.</p> <p>Illustrated below is the approximate appearance of a well cut oval shaped sapphire for a given carat weight included in the Gempports.</p> <div></div> <div>1.002.003.005.0010.0020.00</div>										
COLOR	<p>Color originates in the mind of the observer, making it a matter of personal reference.</p> <p>Sapphires vary in color depending mainly upon their titanium and iron content. Therefore, sapphires from different countries* and mines have different predominant colors.</p> <p>Primarily blue, sapphires range from dark and purplish shades to greenish and yellowish ones.</p> <p>A natural color will always have a greater value than an equivalent color obtained by heating or other processes.</p> <p>Below are illustrations of a master set for sapphire color grading, showcasing blue shades.</p> <div></div> <div>deep bluevivid blueintense bluebluelight blue</div> <p>* Main countries where sapphires are mined: Afghanistan, Cambodia, China, India, Kenya, Madagascar, Myanmar (Burma), Pakistan, Sri Lanka (Ceylon), Tajikistan, Tanzania, Thailand (Siam), Vietnam, and Mozambique.</p> <p>Inks and paper are subject to aging and differences in printing techniques. Therefore, these colors shall not be used for color references.</p>										
ORIGIN	<p>Sapphire's origin significantly influences its value and desirability. Some mines are preferred, even within the same country. Ask for the origin of the sapphire before you purchase however keep in mind that your final judgement should be based on your own criteria and purpose. Concentrate of the "merits" and "characteristics" of the sapphire with view to its physical and optical and individual beauty of the stone.</p> <p>The reference prices indicate sapphires from Sri Lanka (Ceylon) and other localities, respectively.</p>										
TREATMENT	<p>Sapphires are often treated to enhance its color and clarity for improving its value and appearance. Inquire about treatments like heating, irradiation, oiling, dying, fracture filling or any combination of processes for the sapphire you're interested in.</p> <p>Seek guidance from a reputable expert. Natural, untreated sapphires command higher appreciation and are more expensive. However, some traditional treatments, like heating for sapphires, are acceptable.</p>										
CLARITY	<p>The clarity of a sapphire is evaluated based on the number, size and position of inclusions which are natural materials present in the stone. They reflect its fascinating geological aspects. There maybe presence of fissures, fractures, and cavities, impacting the sapphire's appearance both internally and externally.</p> <p>The clarity of sapphires is classified into four levels to account for differences: excellently clean(C1), very clean (C2), clean (C3), and ordinary (C4).</p> <div></div> <div>C1C2C3C4</div> <table><tr><th colspan="2">Clarity Level</th></tr><tr><td>excellently clean</td><td>C1</td></tr><tr><td>very clean</td><td>C2</td></tr><tr><td>clean</td><td>C3</td></tr><tr><td>ordinary</td><td>C4</td></tr></table>	Clarity Level		excellently clean	C1	very clean	C2	clean	C3	ordinary	C4
Clarity Level											
excellently clean	C1										
very clean	C2										
clean	C3										
ordinary	C4										
BRILLIANCE	<p>Brilliance in a cut sapphire refers to how much light the gem reflects from inside. When you rotate the stone, you might notice a flicker phenomenon caused by the reflection or internal reflection of light within the sapphire. This play of light, especially visible from the crown, adds to the gem's beauty and overall appeal.</p> <p>The brilliance of sapphires is classified into four levels based on the proportion of brilliance to the crown area and the brightness of the brilliance: excellent (B1), very good (B2), good (B3), and ordinary (B4).</p> <div></div> <div>B1excellentB2very goodB3goodB4ordinary</div> <table><tr><th colspan="2">Brilliance Level</th></tr><tr><td>excellent</td><td>B1</td></tr><tr><td>very good</td><td>B2</td></tr><tr><td>good</td><td>B3</td></tr><tr><td>ordinary</td><td>B4</td></tr></table>	Brilliance Level		excellent	B1	very good	B2	good	B3	ordinary	B4
Brilliance Level											
excellent	B1										
very good	B2										
good	B3										
ordinary	B4										
CUT	<p>Cut refers to how well angles, proportions, symmetry, and polish are handled in sapphires, impacting light reflection and brilliance. Various shapes are crafted to maximize the beauty from the natural rough, as illustrated below.</p> <div></div> <div>OvalCushionPearHeartRoundTrilliantMarquiseEmeraldPrincess</div>										