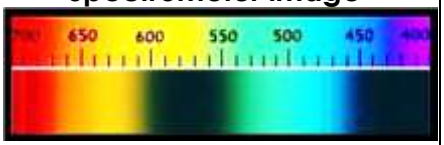
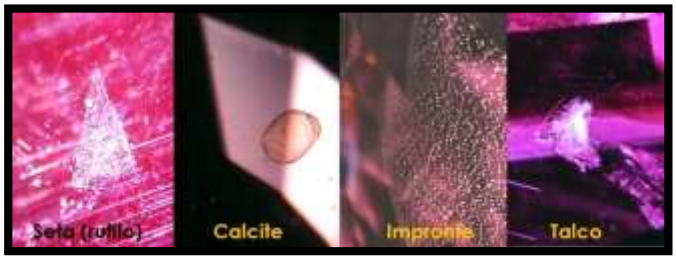
Warning: this version has been completed with Google Translate , it certainly contains errors or inaccuracies.

Technical sheet - general: Pink Sapphire (and Rosa Vivo)

<table>
<tr><td>Gemma - names</td><td colspan="2">(Italian - bright pink sapphire)
(English - Hot pink sapphire)
(French - Saphir rose vif)
(Spanish - Fuerte pink sapphire)
(Portuguese - Safira rosa choque)
(Thai - ไพลิน สีชมพู ร้อน ph į lin s¯ ī chmph ū rˆxn)</td><td>(German - Pinker Saphir)
(Arabic - الياقوت الوردي الساخن alyaqut alwardiu alsaakhin)
(Russian - Ярко-розовый сапфир Yarko-rozovyy sapfir)
(Mandarin -粉 红色 蓝宝石 fě nh ó ng sè lá nb ǎ osh í)
(Swahili - Sapphire nyekundu ya motorbike)
(Hindi - गर्म गुलाबी नीलम garm gulaabee neelam)</td><td>photo
  </td></tr>
<tr><td>Colors (GIA)</td><td colspan="3">Pink sapphires, like any other sapphire color, are available in a huge range. From deep magenta to light pink always popular, known as "baby pink". Some are more purple while others are more red. Highly saturated medium or medium dark pink tones are probably best, but it really depends on the individual which tone they prefer. The finest pink sapphires on the market however have a rich pink hue with purple undertones.</td></tr>
<tr><td>Cause of Color</td><td colspan="4">Pure pink sapphire is colored by small amounts of chromium and with increasing amounts of chromium it forms a continuous chromatic range with the ruby.
Allochromatic Gem</td></tr>
<tr><td>Classification</td><td>Mineral class
Oxides</td><td>Species - Mineral group
Corundum - hematite</td><td colspan="2">Variety
Pink sapphire</td></tr>
<tr><td rowspan="2">Optical properties</td><td>Specific Gravity:
3.95 to 4.10
common 4.00</td><td colspan="2">RI: 1,768-1,772
or 1,760–1,763
Polariscope : DR
Double refraction: 0.008 - 0.010</td><td>Character optical
Negative uniaxial</td><td>Pleochroism
Dichroic: purple pink - orange pink</td></tr>
<tr><td colspan="2">Luster (luster) - luster of the fracture
Sub-adamantine, vitreous - vitreous, pearly (along the twin planes)</td><td colspan="2">Dispersion (fire)
0.018</td></tr>
<tr><td>Light</td><td colspan="2">Fluorescence
SWUV : from red (Myanmar) to inert (Thailand)
LWUV : from intense red (Myanmar) to inert (Thailand)</td><td colspan="2">Phosphorescence
No</td></tr>
<tr><td>Form</td><td>Crystalline dress
Prisms or hexagonal plates, rhombohedrons
Melting point: 2,030–2,050 °C</td><td colspan="2">Phenomenal optical effects
Attitude, asterism</td><td>Crystalline system
Trigonal Scalenohedral hexagonal
 
Crystal class</td></tr>
<tr><td>Chemical formula</td><td colspan="2">Aluminum oxide
Al_2O_3 (+ Cr)</td><td colspan="2">Spectrometer image
 

The 2 broad bands are more pronounced when the chromium content increases.</td></tr>
<tr><td>Fracture</td><td>Flaking
No real flaking plan</td><td colspan="2">Breaking- Parting
Baseline (infrequent)</td><td>Fracture
Concoidal, chipped</td></tr>
<tr><td>Durability</td><td>Hardness (Mohs);
Absolute
9; 400</td><td colspan="2">Toughness
Fragile</td><td>Stability (heat, light, chemicals)
Stable</td></tr>
</table>

<table>
<tr><td>Clarity - characteristics</td><td>Typical inclusions: Small rods and tubes, which germinate repeatedly forming feathers (growth lines), in addition, Fingerprints, cavities, chromatic zones, twin planes, halo / discoid fractures, "fire marks" (small wavy cracks, approximately parallel, often visible at or near the edges of the natural or synthetic corundum facets), including crystals (calcite, boehmite, mica, spinel, apatite, garnet, pyrochlore, uranium, hematite, pyrite, zircon, calcite, rutile and spinel) dots and clouds, liquid inclusions, negative crystals, biphasic inclusions, silk / rutile needles (along planes parallel to the hexagonal prism at 60 ° and 120 °).
 

<table><tr><td>Type II
Normally included</td><td>Transparency (commercial) - transparency
From transparent to opaque</td></tr></table></td></tr>
<tr><td>Deposits - types of rocks</td><td>The host rocks of pink sapphires are metamorphic dolomitic marbles, gneisses and amphibolites. The yield of these gems from such primary deposits is often not economically viable. They are most commonly taken from alluvial / secondary deposits. Due to their high density, sapphire is normally separated by washing gravels, sands and river soil, then concentrated and finally hand-picked.
Geological age : from 3 billion to 50 million</td></tr>
<tr><td>Characteristics of rough stones</td><td>Sapphites like to grow in a flat, hexagonal (sometimes bipyramidal) shape . Sapphires are also very heavy for their size. Nature almost never uniforms anything, especially precious stones. Most of them form in a superheated slurry of various elements that make oddly shaped inclusions and roughness very common. Sapphires can also appear in places like Sri Lanka as water-worn pebbles, making identification from the crystal's original shape nearly impossible. Although they have been altered and broken over time, they can appear superficial even in this form. Unfortunately, only first-hand experience and general training can help definitively identify the gem at this point. Thankfully, there are other ways to control gemstones.</td></tr>
<tr><td>Main deposits</td><td>The deposits are practically the same as for the rubies. The difference between the two gems is sometimes imperceptible and often at the discretion of the seller or the market. Clearly clear or desaturated sapphires are not passed off as rubies, while those closer to red, of an intense pink, can sometimes be placed as rubies.
Main deposits: Mozambique (district of Montepuez - province of Cabo Delgado, province of Niassa, province of Tete), Myanmar / Burma (Mohnymania) / District of Myitkyina-State of Kachin, District of Pyin-Oo-Lwin (Mogok) -Region of Mandalay, Momeik Township / Loilen District / Mu Se District-Shan State), Madagascar (Didy-Alaotra-Mangoro , Ambodimangavalo / Sarambana-Analanjirofo , Tranomaro / Isoanala-Anosy , Atsimo-Andrefana , Vatomandry-Atsinanana , Ranohira / Zazafotsy-Ihorombe , Ambohitsimanova-Vakinankaratra), Sri Lanka (Elahera District - Central Province, Polonnaruwa District - North Central Province, Sabaragamuwa Province , Colombo District - Western Province).
Minor deposits: Thailand, Australia, India, Kenya, Tanzania, United States, China.
Geological age : from 3 billion to 20 million years</td></tr>
<tr><td>Year of discovery</td><td>Ancient (date unknown) / 1990, Although known, appreciated and collected for over 2000 years, only at the end of the last century, thanks to the identification of important deposits in Madagascar, this gem became more known and available.</td></tr>
<tr><td>History</td><td>Pink sapphires have become more available since new deposits were found in Madagascar in the late 1990s. Up until that time, pink sapphires were considered exceptionally rare as they were found only in a few locations in the world, the most popular locations being Sri Lanka, Myanmar and East Africa .
Madagascar is the leader of pink sapphires today. The quantity and quality are unmatched by any other source. They are commonly stones less than 1 carat in size , with most of the crystals having good clarity and uniform color . This makes it easy to identify a classic color associated with most Madagascar sapphires. Most of these pink sapphires have a vibrant medium pink color with an almost electric light-reflecting property. But the color of these pink sapphires may have a secondary purplish hue which can be slightly reduced by low temperature heating.
Name : From the Greek σά πφειρος (sàppheiros). Then to the Latin sapphirus , correlated with the Hebrew sapir and with the ancient Indian शनिप्रिय (zanipriya , in which</td></tr>
</table>

	the 'z' must be read as sc- of shawl), which means ' **dear / sacred to Shani '** , (the planet Saturn). Shani , the male deity connected to the homonymous planet is characterized by a dark skin, armed with a stick, ax and trident, represented astride a crow. For this very reason, *zanipriya* is supposed to be a dark colored gemstone. Shani is connected नील (nīla , which means, among other things, ' dark blue'), the divinity opposite him and possibly his mate: after she dissolved in him, putting her immense power at his service, Shani rewarded her ensuring it is known as the ' Nīla gem ', the blue sapphire (which also appears on Shani 's crown). **Other trade names: Pink sapphire , rose sapphire** **Variety** :
Property attributed	Pink sapphires symbolize **loyalty, trust and sincerity** . They reflect the subdued and more feminine aspect of the red color energy, bringing **determination, commitment and care** . Its soothing color calms feelings of anger or resentment and can aid efforts to **meditate and reflect** . Pink is the color of new love, new romance and new relationships. It increases developing **sensuality and can help overcome pain by helping to improve our caring and loving skills.** The gem acts like a magnet attracting everything that is **necessary to evolve into one's life** . It is a stone of spiritual power and cunning, which brings prosperity and helps support the gifts of life. It tends to focus, emanate and radiate its energy into fulfilling dreams and desires of consciousness, even without conscious initiation. It teaches appreciation and gratitude, reinforcing the awareness that love is its own reward. It reminds us that our hearts desire for the Divine is identical to the desire the Divine feels for us. On the occasion of the **5th and 45th wedding anniversary** , pink sapphires offer stunning contemporary alternatives to the more traditional blue sapphire. **Planet:** Venus **Month:** September **Zodiac sign:** Libra **Chakra:** heart
Treatments	Most pink sapphires undergo **heat treatment** because of course the pink blanks when they come out of the ground are a little too dark and purple. This treatment is more widely accepted for pink sapphires than blue ones and does not compromise the integrity of the stones because it is a low temperature treatment and only slightly alters the color of the stones. Untreated gems, due to their extreme rarity, have a higher price than those heated stones. Pink sapphires from Madagascar are treated very differently than traditional long-term, high-temperature heating of blue and yellow sapphires. Blue and yellow sapphires are heated to extreme temperatures for a long time (3-10 days up to 1800 ° C) with fluxes and other coloring additives. Pink sapphires from Madagascar, on the other hand, are heated to a much, **much lower temperature** (400 ° C), so hardly any internal characteristics of the stone are altered. Determining whether a sapphire has been heated is normally a simple task done by an experienced gemologist who is familiar with the inclusions within sapphires. When sapphires are heated to high temperatures, the internal inclusions change dramatically. The visualization of these internal inclusions radically changed and becomes an obvious characteristic of a heated sapphire. The pink sapphires of Madagascar are heated for a few minutes, at low temperatures that do not change the internal inclusions. Since no internal inclusions are affected, it becomes VERY difficult to determine if a pink sapphire has been treated. In this case, only high-tech equipment can help detect traces of changes in the mineral content within the stone. This type of equipment is very expensive and used only by high quality laboratories.
Synthetic counterpart	The synthetic Sapphires that are most frequently encountered in the trade are the so-called Verneuil Sapphires. Almost all of these unnatural crystals show telltale gas bubbles and curved streaks. However, other types of artificial sapphires, produced with more sophisticated and expensive methods, such as hydrothermal or "Czochralski's" can pose serious problems. Careful microscopic studies of inclusions lead mainly to successful identification, where lens and experience are not enough. In very rare cases advanced technologies such as element analysis eg. X-ray diffraction or Raman spectroscopy must intervene.
It can be confused with	**Ruby** (amount of color), It can also be exchanged for almost all other transparent, synthetic and **glass pink gems** . The number of buds found in pink color is quite large. The most important are **tourmaline** , **spinel** , beryl (**Morganite**), **topaz** , **Spodumene**

	(Kunzite) and diamond. Some **garnets** , particularly the **rhodolite garnet** , also come in a pink color. Less common: rose quartz.		
Indicative gemological tests	The distinctive tests are the same as for the other sapphires / rubies (see related data sheets). An important distinction concerns the separation of pink sapphire from ruby, when the color level is sufficiently intense to create doubts (which correspond to an effective cost, being the ruby more expensive than pink sapphire). A much more realistic approach is to separate rubies from color-based pink sapphires by **visual comparison with color charts or masterstones** , for example through a set of synthetic corundum masterstones, such as those assembled by the ICA in the 1980s. Another option is to use color cards made with wavy metallic foils, which to some extent mimics the reflection effects due to the facets of a cut stone.		
Value (2021)	**High :** 20,000-100,000+ $ / ct **3 carat +**	**Medium: $** 5,000-10,000 / ct **1-3 carats**	**Low:** $ 200 / ct **below the carat**
Typical cut	The cut does not only refer to the shape of the stone. Rather, it attaches itself to the facets on the surface of a gem, which allow the light and color to shine at its best and its proportions. It is especially important in lighter colored stones and is the main factor affecting the brilliance of your sapphire. If the cut is poor, the stone will appear dull and lifeless.		
Famous stones	Grace Kelly, the American actress who married Prince Rainier III of Monaco, was known around the world for her elegance and sense of style. Precious precious stones, such as pink sapphires paired with diamonds were always Princess Grace's favorites. One of the largest pink sapphires found to date is a **5.81 -** carat oval-shaped stone set in a Marquise diamond ring. The value of the entire piece was estimated in 2012 at around **$ 27,455.**		
Record stones	The largest pink sapphire weighs **214.50 carats** (42.39 g) and is owned by Medici Collection, LLC (USA) as verified on March 9, 2020.		