
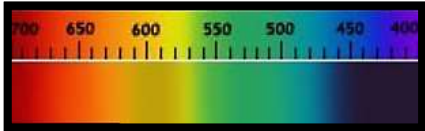



Warning: this version was completed with Google Translate, it certainly contains errors or inaccuracies.

Technical data sheet – general: **Phosphosiderite**

Gemma – names	(Italian - Fosfosiderite) (English - Phosphosiderite) (French - Phosphosiderite) (Spanish Fosfosiderita) (Portuguese - Phosphosiderite) (Thai - ฟอสโฟไซด์ไรต์ (fos-fosai-dai) (Hindi - फॉस्फोसाइडेर्राइट (phōsphosaidērāit)	(German - Phosphosiderite) (Arabic - الفوسفوسيدريت (al-fōsfōsīdīrīt) (Russian - фосфосидерит (fosfosid é rit) (Mandarin - 磷酸铁矿 (língsuān tiěkuàng) (Swahili - Fosfosiderite)	photo 
Colors (GIA)	Its typical colors include purple, pink, whitish, red, red-purple, reddish-purple, pink-red, peach-pink , and, less frequently, colorless, yellowish, brownish-yellow, and the green moss . Phosphosiderite is easily soluble in hydrochloric acid.		
Cause of Color	Trace elements: Iron, manganese, chromium. Its color can be influenced by the presence of impurities or inclusions of other minerals. The two main chromatophore elements of phosphosiderite are iron (Fe) and manganese (Mn) . Iron has an ionic valency of Fe ⁺² or Fe ⁺³ , while manganese has an ionic valence of Mn ⁺² or Mn ⁺⁴ . The color of phosphosiderite depends on the combination of the ionic valences of these two elements. Fe ²⁺ phosphosiderite crystals are generally red in color, while Fe ³⁺ phosphosiderite crystals are generally pink or purple in color. Phosphosiderite crystals with manganese Mn ²⁺ are generally yellow in color, while phosphosiderite crystals with manganese Mn ⁴⁺ are generally green in color. ²⁺ iron phosphosiderite is rarer than Fe ³⁺ iron phosphosiderite. Mn ²⁺ manganese phosphosiderite is more common than Mn ⁴⁺ manganese phosphosiderite . Phosphosiderite is a dimorph of strengite , a fairly rare iron phosphate mineral. Idiochromatic (Iron) and Allochromatic (manganese) Gem		
Classification	Mineral class Phosphate	Species – Group (mineral) Phosphosiderite - Vivianite	Variety --
Optical properties	Specific Gravity: 3.21-3.35 <small>Municipality: 3.28</small>	RI: 1,612-1,622 Polariscope : ADD Birefringence: 0.006 (generally not measurable)	Character optical Uniaxial positive
	Luster (luster) – luster of the fracture Vitreous to pearly - vitreous		Pleochroism Dichroic: red-orange and green-yellow
	Dispersion (fire) 0.014		
Light	Fluorescence SWUV (254 nm) : Absent LWUV (365nm) : Absent		Phosphorescence Absent
Form	Crystalline dress Prismatic Melting point: 1250 °C	Phenomenal optical effects Nobody	Crystalline system Monoclinic Crystal class
Chemical formula	Iron (III) phosphate dihydrate FePO₄ · 2H₂O		Spectrometer image  Not indicative
Fracture	Flaking Perfect (1 direction)	Breakup- Parting Irregular	Fracture Conchoidal

Durability	Hardness (Mohs) - Absolute 3.5 to 5.5 (variable); 15-60	Toughness Good	Stability (heat, light, chemicals) Good (sensitive to light and heat)
Clarity - characteristics	Typical inclusions: Being a translucent or opaque stone, the inclusions are mostly considered as designs with a more or less positive aesthetic value. Stains may be present.		
	Type III Typically included	Transparency (commercial) - diaphanity From translucent to opaque	
Deposits - types of rocks	It is typically found in hydrothermal veins and pegmatites. Hydrothermal veins are mineral deposits that form when hot, mineral-rich water flows through fractured rocks. Pegmatites are intrusive rocks that form when magma slowly cools. Phosphosiderite is often found in association with other phosphate minerals, such as apatite, strengite and rockbridgeite. It can also be found in association with other minerals, such as quartz, mica and hematite. Geological age : 2.5-3.4 billion years		
Characteristics of rough stones	Prismatic crystals of red, pink, purple, green or yellow. It usually occurs in small crystals or aggregates.		
Main depots	Major deposits include Hagendorf and Pleystein in Bavaria (Germany), Mangualde in Portugal , Chanteloube near Limoges in France , S. Giovaneddu near Gonnese in Sardinia, Pala in California (United States) and several mines near North Groton in New Hampshire Other deposits are found in Chile, Brazil, Bolivia and Argentina.		
Year of discovery	1858: Phosphosiderite was first identified in 1858 by Alfred Lewis Oliver Legrand Des Cloizeaux. It was officially published in 1890 by Willy Bruhns and Karl Heinrich Emil Georg Busz, they called it "phosphosiderite".		
History	Phosphosiderite was discovered in 1890 in Chile. It has subsequently been found in other parts of the world, including Argentina, Germany, Portugal, and the United States. Alfred LaCroix introduced the term " vilateite " in 1910 , while Duncan McConnel described " clinobarrandite " in 1940 . "Metastrengite" was coined by Palache, Berman and Frondel in 1951 as the original phosphosiderite had been described as an orthorhombic mineral. Name : due to its chemical composition. being a phosphate from the Greek terms "φωσφόρος" (phosphoros) – phosphorus, and "σίδηρος" (sideros) meaning iron. Other trade names: Phosphosiderite is also known as vilateite and clinobarrandite. However, these names are less common than the official one. It is also sometimes called 'PiedreaVoga', meaning pink stone, and 'La Rosa Voca', meaning pink rock. Variety : /		
Attributed properties	Phosphosiderite is associated with metaphysical properties of forgiveness, compassion and self-love . It is believed to help release stress and anxiety and promote emotional healing. It can also be used to promote emotional healing. For some people, this stone helps connect to other realms or planes of existence , especially those of the afterlife. Planet: Mars Month: October Zodiac sign: Aries Chakras: Heart, third eye,		
Treatments	Generally untreated, but is sensitive to heat and light.		
Synthetic counterpart	There is no commercially common synthetic counterpart of phosphosiderite.		
May be confused with	Generally uncommon, it is difficult for it to be mistaken for other stones or to be used as an imitation. It can, however, be confused with other red, pink, purple, green or yellow hydrothermal minerals, such as variscite, turquoise and rhodochrosite . The beautiful purple of phosphosiderite can easily be confused with other similarly colored crystals, such as lepidolite . Both have monoclinic crystal structures and are relatively soft. However, there are some key differences between phosphosiderite and lepidolite that can help you distinguish them. Color-wise, lepidolite is more similar to amethyst than phosphosiderite. Furthermore, lepidolite exhibits fluorescence, while phosphosiderite does not. Lepidolite is composed		

	of mica, while phosphosiderite is composed of iron and phosphorus. Another distinction is that phosphosiderite is slightly harder than lepidolite.		
Indicative gemological tests	Generally it is not tested, given the low cost and the scarcity of material on the market.		
Value (2021)	High : 50+ \$/ct 3 carats+	Medium: \$ 10-50 /ct 1-3 carats	Low: \$5-10/ct under the carat
Typical cut	Phosphosiderite is cut into a variety of shapes, including cabochon, faceted, and pearl stone cut.		
Famous stones	There are no known phosphosiderite stones.		
Record stones	The largest phosphosiderite stone ever recorded is a 10.5 centimeter long crystal found in Chile. The most expensive phosphosiderite stone ever sold is a 5-carat cabochon sold for \$2500.		