

VENDIAN STONE

CRIMSON (RASPBERRY) QUARTZITE



«Rovskoe-1» deposit of Vendian Stone
Podporozhye district,
Leningrad region, Russia



Bust of the architect Auguste Montferrand
in St. Isaac's Cathedral
(1850, architect A. Foletti), St. Petersburg

PRODUCT ADVANTAGES: VENDIAN STONE IS

- Eco-friendly and absolutely safe. It can be used to decorate the interior surfaces of residential and public buildings;
- Very durable. It does not deform or deteriorate, and is highly resistent to corrosion, decay, and cracking;
- Extremely strong. The coating made of it is resistant to mechanical stress, abrasion, vibrations, frost and heat, temperature drops, direct sunlight, and corrosion caused by salts and alkalis;
- Non-hygroscopic. It does not absorb water, gasoline and other liquid compounds;
- Will let you reduce your maintenance costs and time significantly;
- Has a very aesthetic appearance, and is perfect for exquisite design solutions;
- Compatible with other materials, and can be combined with wood, greenery, metal, glass, etc.

BLOCKS OF VENDIAN STONE

The «Rovskoe-1» deposit is the only one in Russia where crimson (raspberry) quartzite is mined in the block stone. Our company produces high quality blocks in various sizes for further processing.

RANGE OF APPLICATION:

- production of slabs for subsequent sawing into facing tiles;
- production of architectural elements - columns, balusters, capitals, rosettes, bas-reliefs and others;
- production of sculptures, monuments, memorials and other artistic products;
- use in landscape design.

AVAILABLE SIZES ARE AS FOLLOWS:

- I category – more 5m^3;
- II category – from 2m^3 to 5m^3;
- III category – from 1m^3 to 2m^3;
- IV category – from 0,4m^3 to 1m^3.



POLYGONAL (CRAZY PAVING) PLATES
of Vendian Stone over 3 cm thick

RANGE OF APPLICATION:

- terrace surfacing;
- ramp surfacing;
- walkway surfacing;
- stone fence and wall construction;
- facing of fences, walls, arches and openings;
- cladding of buildings and their elements;
- decorative elements in landscape design.

Embossed and uncut stone of natural shape will create an exquisite appearance and unique pattern since all plate look different.

The natural shape of the plates is irregular. The plates thickness varies within a tolerance of ±7 mm. The material includes small natural stepped inequalities and wavelike transitions. Plates are sorted by thickness, type (flat/wavy), and packed by hand.

Vendian Stone is absolutely insensitive to environmental factors and can be used both indoors and outdoors.



SAWN AND CHOPPED PAVING STONES
of Vendian Stone

Crimson (raspberry) quartzite is environmentally friendly, durable and excellently retains its properties. It can be operated under any natural conditions and be exposed to technology-related impact. The service life of Vendian Stone paving is unlimited, and its maintenance requires negligible financial and time costs.

PRIVATE SECTOR APPLICATION:

- open area and path surfacing;
- surfacing of entrances to parking lots and car areas;
- residential premise decoration;
- decorative elements in landscape design.

COMMERCIAL APPLICATION:

- surfacing city areas, embankments and sidewalks;
- surfacing in squares, markets, in front of museums, theaters, cathedrals and other significant objects;
- surfacing car parking lots and public transport stops;
- landscape architecture elements.





RADIATION TESTS OF VENDIAN STONE

Specific effective activity
$A_{eff.}$ = 61 Bq/kg.





PHYSICAL AND MECHANICAL PROPERTIES OF VENDIAN STONE

Density, kg/m^3	2.660-2.700
Dry compressive strength, MPa	324
Ultimate compressive strength of water-saturated stone, MPa	296
Heat resistance, °C	1,770
Porosity, %	0.14
Decorative value, points	Highly decorative ≥ 32
Mohs hardness	≤ 8
Polishing, mesh	170-200

CHEMICAL PROPERTIES OF VENDIAN STONE

SiO_2, %	94.54-98
Al_2O_3, %	2.913
Fe_2O_3, %	0.866
K_2O, %	0.744
Na_2O, %	0.248
Ba, %	0.0254
TiO_2, %	0.0616
CaO, %	0.0124
MgO, %	<0.1
MnO, %	<0.01
P_2O_5, %	<0.05
V	<0.005
Losses on ignition	0.729

HISTORICAL REFERENCE

Vendian Stone is a mineral rock. Its deposites were formed in the Vendian (Ediacaran) geological period (about 635 - 541 million years BC) on the shores of an ancient sea that stretched from Scandinavia to Lake Onega. This noble, solemn and unfading material with high polishing properties and even purple color was called the "Imperial stone". Vendian Stone has various names: red porphyry, Shokhan porphyry, Shokhan, Shokhan red stone, Shoksha red porphyry, Shoksha quartzite, crimson quartzite, raspberry quartzite, Antique Red Porphyry. Its color and structure make it very popular among designers and decorators, just like the famous antique porphyry mined in Egypt (Porfido Rosso Antico).

Vendian Stone is mined today in large blocks that are used in architecture of monumental structures and solemn small forms. Nowadays, industrial mining of Vendian Stone is mined at the «Rovskoe-1» deposit.

Vendian Stone is unique. In the 18th century, it was used to decorate palaces and monuments. Its properties made it very popular in the 19th-20th centuries, especially to emphasize the majesty or solemnity of the building. It was used mainly to decorate the solemn architectural masterpieces and monuments, some of which are famous all around the world:



Cupid and Psyche cup base
(1807, project author A.V. Voronikhin)
State Hermitage, St. Petersburg

- Tomb of Napoleon Bonaparte in the Cathedral of the House of Invalids (1848, architect L. Visconti), Paris;
- The M.V. Lomonosov Moscow State University building (1949-1953, architect L.V. Rudnev), Moscow;
- Hilton Leningradskaya hotel (1949-1954, architect L. Polyakov A. Boretsky), Moscow.
- The Great (Old) Hermitage (1771-1787, architect Y.M. Felten), St. Petersburg;
- Kazan Cathedral (1801-1811, architect A.N. Voronikhin), St. Petersburg
- Isaac's Cathedral (1818-1858, architect O. Montferrand), St. Petersburg,

Vendian Stone is used as decorative material, and also for creating cobblestone pavements and platforms. The material was supplied to many European countries, such as France and Italy, where it was used to decorate the Italian Renaissance architectural masterpieces.



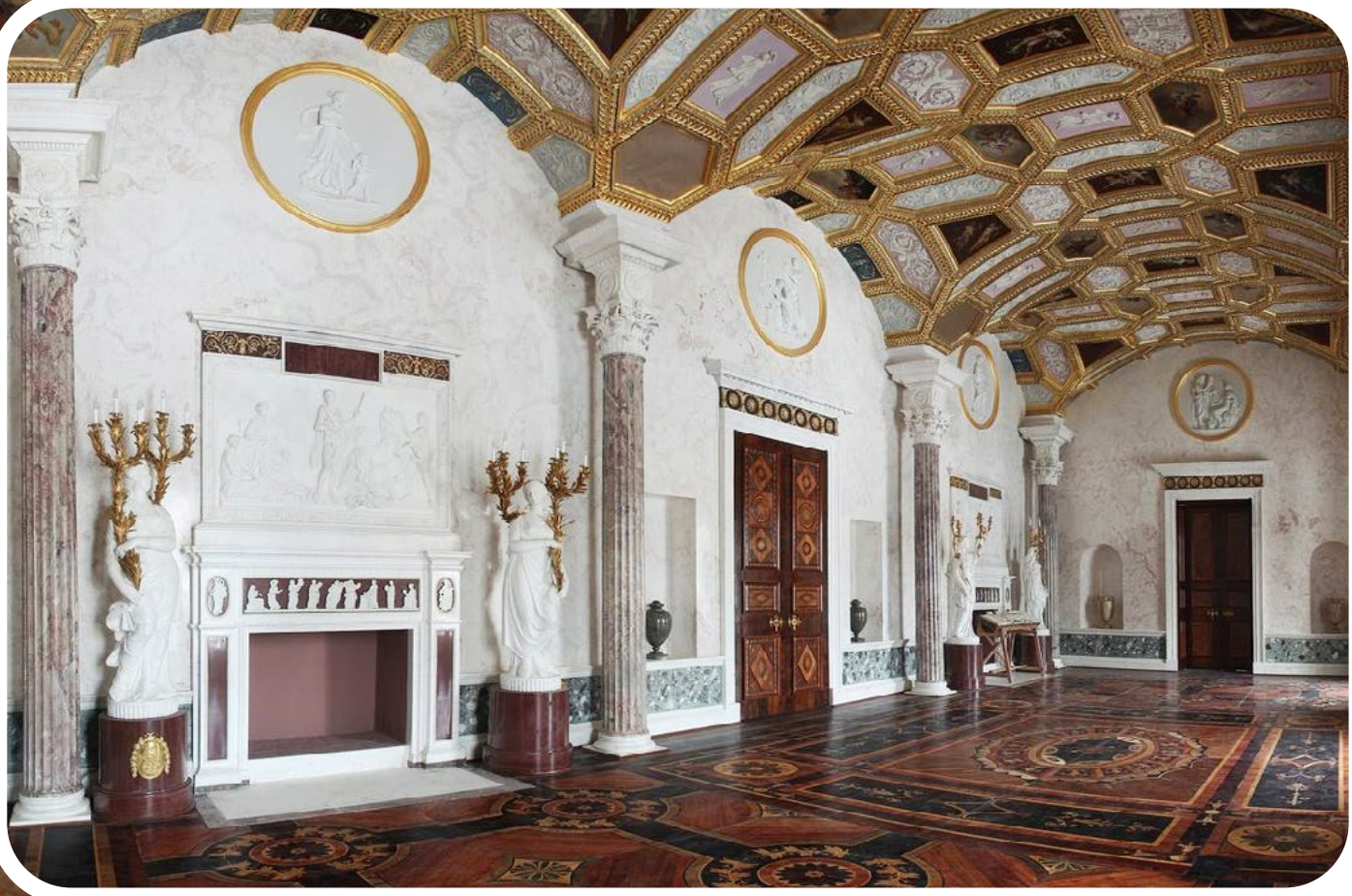
Foundation of the monument to Nicholas I
(1857, sculptor P.K. von Klodt), St. Petersburg



Frieze over the southern gate of the Mikhailovsky Castle
(1797-1801, architect V. Brenna V.I. Bazhenov), St. Petersburg



Decoration of the Red Hall in the Mariinsky Palace
(1839-1844, architect A.I. Stakenschneider), St. Petersburg



Vestals statues-lamps in the Catherine Palace, decoration of fireplaces and pedestals
(1779, architect Ch. Cameron), Pushkin



Pedestal, alley The Hero-Cities, Alexandrovsky Garden
(1967 г., architects D. I. Burdin, V. A. Klimov, Y. R. Rabaev), Moscow

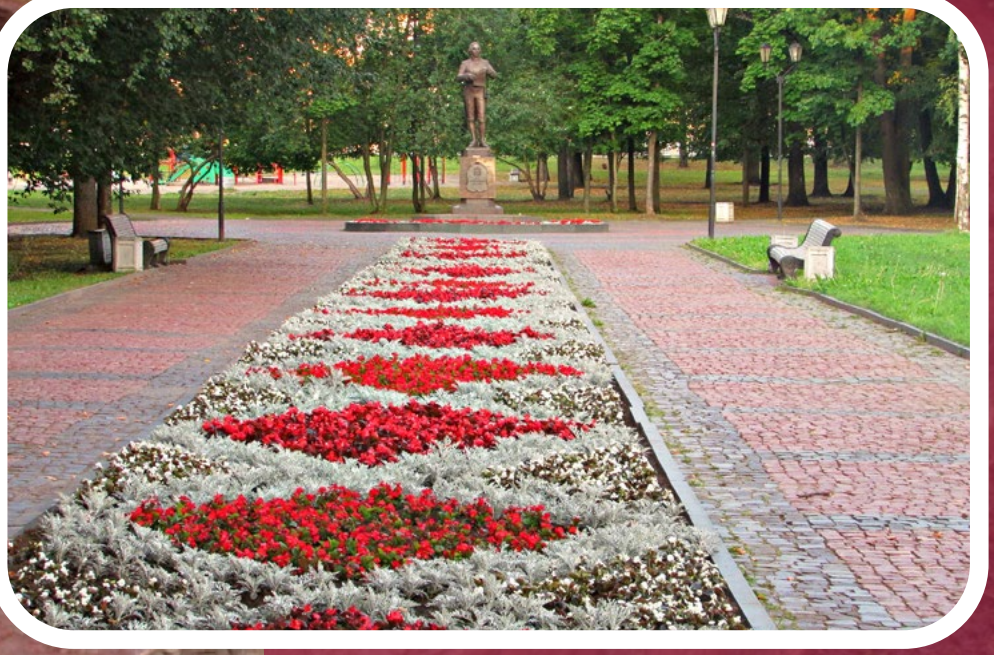


Three-level pedestal of the V.I. Lenin monument
(1954, architect A. Gegello), Kazan

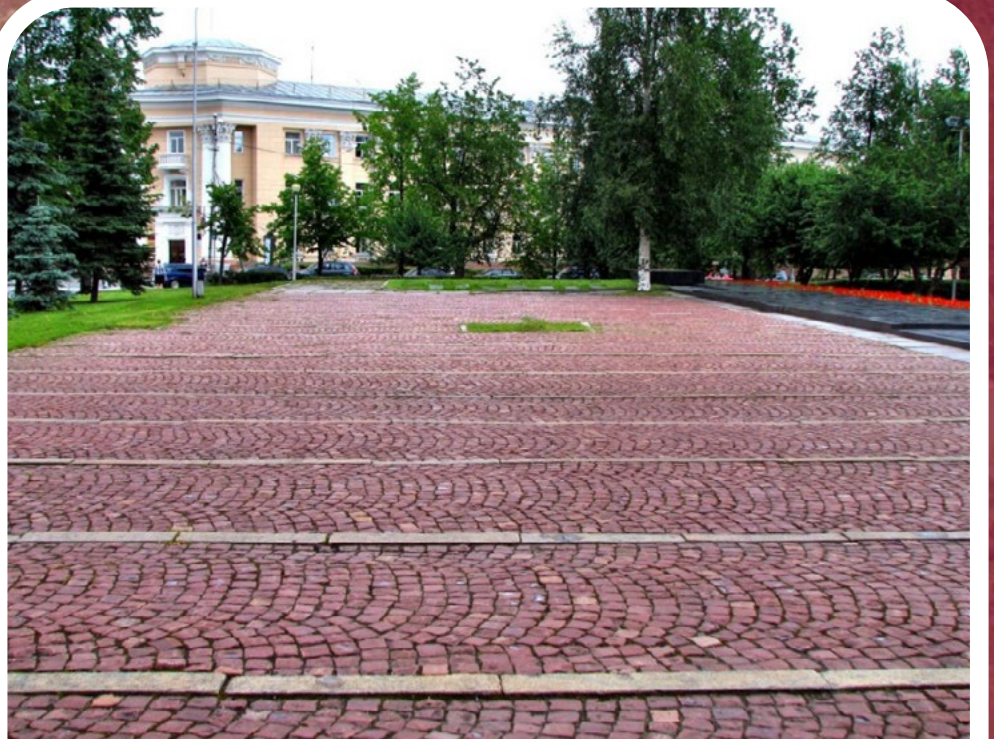


Paving stones made of Vendian Stone are unmatched in terms of performance and visual appeal. This unique material stands out among structural and semi-precious stones. Its consumer and decorative characteristics are significantly higher than those of any granites, granite-gneisses, diorites, gabbros, or labradorites.

Paving stone
The Onega embankment
(1981), Petrozavodsk



Paving stone paths and squares
The Governor's Garden
(1981), Petrozavodsk



Paving stone
The Governor's Garden
(1981), Petrozavodsk



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