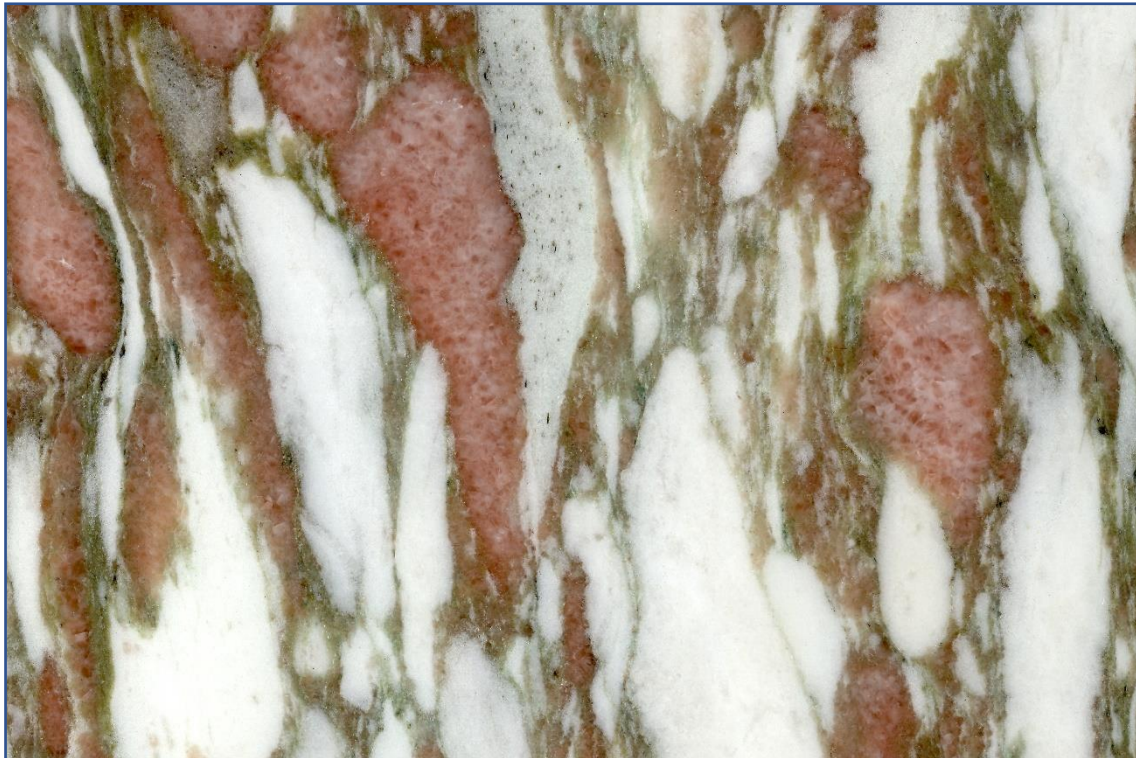




# Norwegian Rose

Fauskemarmor

Fauske Marble

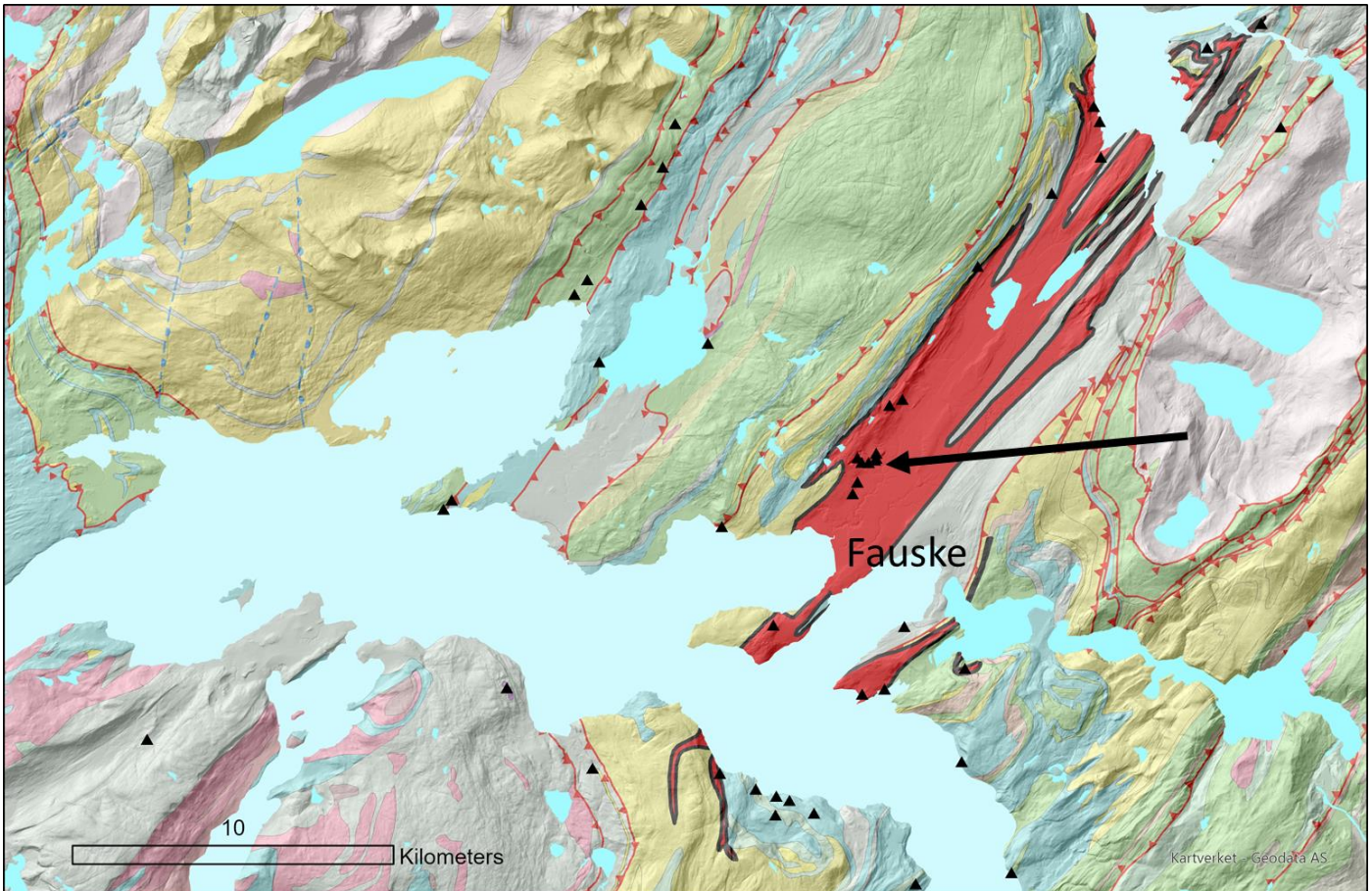


5 centimeters

**Short description:** White and pink marble, composed of elongated clasts of white dolomite marble within a matrix of pink calcite marble. The image displays a polished surface.

Commodity (vocabulary)	Lithology (vocabulary)	Typical colour (code list)	Place of origin			
			Country	County / District / Province	Municipality / Community	Place/town / Village
Commercial Marble	Marble	Pink	Norway	Nordland	Fauske	Løvgavlen

# Geological setting



**Geology:** The marble units within the Fauske Nappe are composed of a variety of coloured marbles. They were deposited as limestone on a carbonate platform near tidal environments. Tectonic emplacement and metamorphism took place during the Caledonian Orogeny. The Norwegian Rose subtype represents multiple layers of tidal channel conglomerate with white dolomitic clasts in the southwestern part of the unit (see arrow on map).

**Production:** The marble has been in regular production since 1884.

**Geological age:** Cambrian 520 Ma

**Geological unit:** [Fauske Group](#)

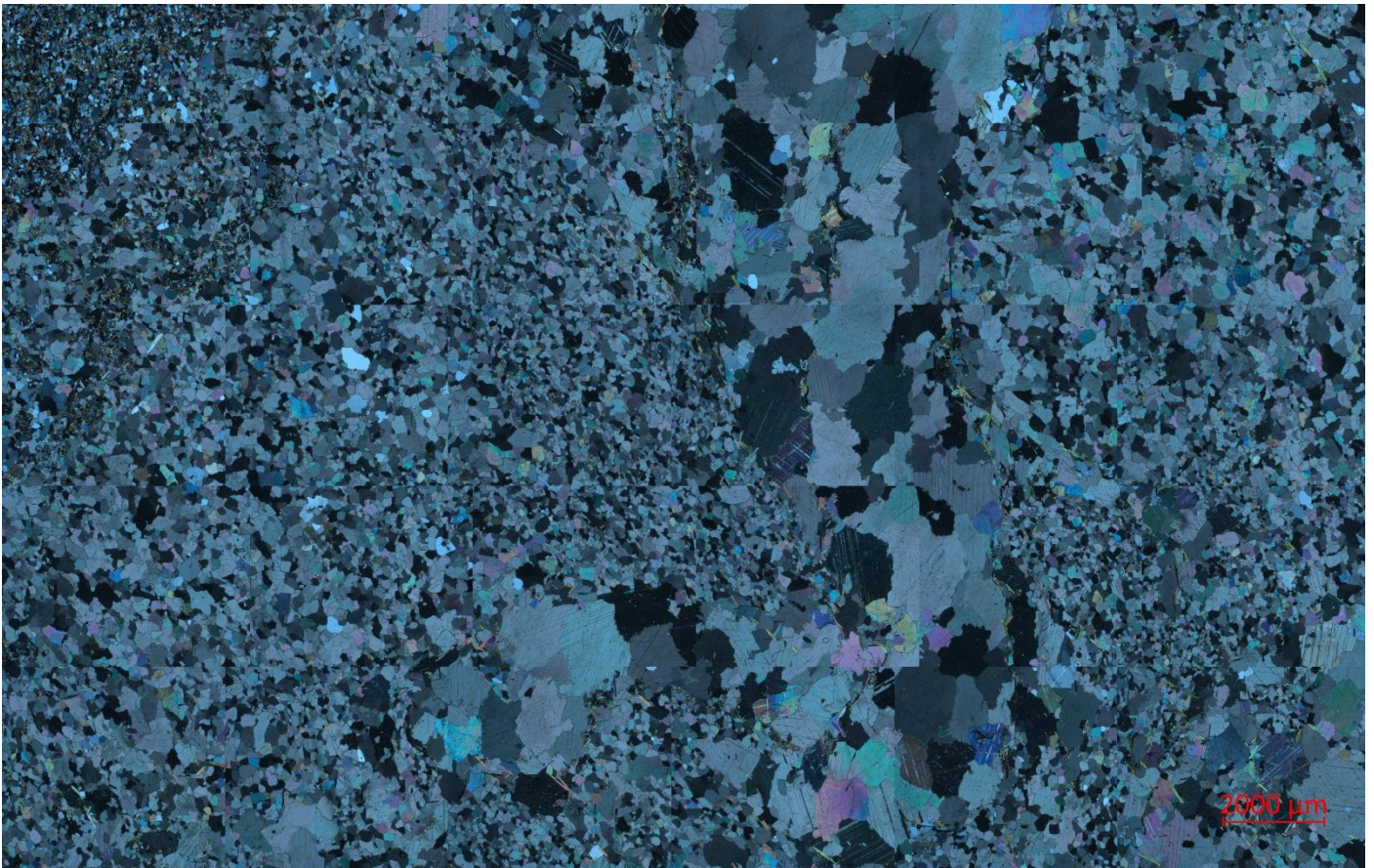
# Application, use and heritage

**Description:** Applied for façade slabs in some early buildings, but mostly it is used for interior floors and walls. Although it appears in buildings since the early days of quarrying, it gained its highest attractivity in international architecture in the 1980s.



The pink Fauske marble among other types, floor, Geological Survey of Norway.

# Petrography



**Description:** Photomicrograph (mosaic) of thin section, crossed polarized light showing predominantly fine-grained clasts within medium- to coarse-grained calcite matrix. Patches are enriched in silicate minerals (such as top-left) including quartz, epidote and mica (predominantly chromium-bearing fuchsite).

**Source of information:** Geological Survey of Norway

# Mineral composition

If no accurate number, use MM=main minerals, SM = Subordinate minerals, AM=accessory minerals

Calcite (%)	Dolomite (%)	Quartz (%)	Epidote (%)	Mica		
40	55	1	2	2		

**Source of information:** Unpublished NGU estimate for this directory

# Physical properties

Apparent density (EN 1936), kg/m <sup>3</sup>	Open porosity (EN 1936), % vol	Water absorption at atmospheric pressure (EN 13755), % wt	Uniaxial Compressive strength (EN 1926), MPa	Flexural strength under concentrated load (EN 12372), MPa
<b>2500</b>		<b>0,09</b>	<b>91,9</b>	<b>13,2</b>

Real density (EN 1936), kg/m <sup>3</sup>	Total porosity (EN 1936), % vol	Water absorption coefficient by capillary (EN 1925) (g/m <sup>2</sup> x s <sup>0,5</sup> )	Flexural strength under constant moment (EN 13161), MPa

Frost resistance (EN 12371)				
Technological Test (Test A)				Identification Test (Test B): Number of cycles completed prior to stone failure
Flexural strength (EN 12372) after freeze-thaw cycling, MPa	Number of cycles	Uniaxial compressive strength (EN 1926) after freeze-thaw cycling, MPa	Number of cycles	

Resistance to ageing by thermal shock (EN 14066)			
Change in dynamic modulus of elasticity (increase: +; decrease: -), %	Change in open porosity (increase: +; decrease: -), %	Change in ultrasound pulse velocity (increase: +; decrease: -), %	Change in flexural strength under conc. load (increase: +; decrease: -) %

Abrasion resistance (EN 14157)			Resistance to salt crystallisation (EN 12370)	Breaking load at dowel hole (EN 13364)	
Method A - Wide Wheel Abrasion Test, mm	Method B - Böhme Abrasion Test, cm <sup>3</sup> / 50cm <sup>2</sup>	Method C - Amsler Abrasion Test, mm	Change in mass (increase: +; decrease: -), %	Breaking load, N	Thickness of the test specimens, mm

Slip resistance by means of the pendulum tester (EN 14231 / CEN/TS 16165)			Rupture energy (EN 14158), Joule	Thermal Conductivity (EN 1745), W/m·K
Tested surface finish	Slip Resistance Value — SRV			
	Dry test condition	Wet test condition		
<b>Polished</b>				

Source of information: [Norwegian Rose AS](#)

# Chemical properties

## Main elements

SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	TiO <sub>2</sub> (%)	MgO (%)	CaO (%)	Na <sub>2</sub> O (%)	K <sub>2</sub> O (%)	MnO (%)	P <sub>2</sub> O <sub>5</sub> (%)	SO <sub>3</sub> (%)	LOI (%)

## Trace elements

V (ppm)	Cr (ppm)	Mn (ppm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Zn (ppm)	As (ppm)
Sr (ppm)	Cd (ppm)	Ba (ppm)	Pb (ppm)	Be (ppm)	Rb (ppm)	Bi (ppm)	U (ppm)
Sc (ppm)	Y (ppm)	Th (ppm)	Sb (ppm)	Ta (ppm)	Nb (ppm)	Zr (ppm)	Sn (ppm)
Ag (ppm)	B (ppm)	Mo (ppm)	W (ppm)	Ga (ppm)	Ge (ppm)	Se (ppm)	Cs (ppm)
Tl (ppm)							


## REE

La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)	Tb (ppm)
Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)		

**Methods applied and source of information:**

## Sources of more information

Type of information	Name of provider	URL
Data sheet	Geological Survey of Norway	<a href="https://geo.ngu.no/api/faktaark/mineralressurser/vi/sNaturstein.php?objid=9246&amp;lang=nor">https://geo.ngu.no/api/faktaark/mineralressurser/vi/sNaturstein.php?objid=9246&amp;lang=nor</a>
Maplink	Geological Survey of Norway	<a href="https://geo.ngu.no/kart/common_mobil/?_ /kart/mineralressurser_mobil/ lang=nor:::extent=514033.53800698643,7462101.246501931,517725.30363198643,7463563.672283181::map=9">https://geo.ngu.no/kart/common_mobil/?_ /kart/mineralressurser_mobil/ lang=nor:::extent=514033.53800698643,7462101.246501931,517725.30363198643,7463563.672283181::map=9</a>
Non-commercial directory	Natural stone online	<a href="https://www.naturalstone-online.com/index.php?id=356&amp;user_dnsaeng_pi1%5BsteinID%5D=1764">https://www.naturalstone-online.com/index.php?id=356&amp;user_dnsaeng_pi1%5BsteinID%5D=1764</a>
Commercial directory		
Scientific publication		<a href="https://www.ngu.no/upload/Publikasjoner/Bulletin/Bulletin436_147-168.pdf">https://www.ngu.no/upload/Publikasjoner/Bulletin/Bulletin436_147-168.pdf</a>
Other publication		

<b>Compiled by:</b>	Geological Survey of Norway (NGU) <a href="https://www.ngu.no/">https://www.ngu.no/</a>	 <p>GEOLOGICAL SURVEY OF NORWAY - NGU -</p>
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