NEOPARIÉS

Crystallized glass stone panel

NEOPARIÉS is a new building material having a marble-like texture and greater strength and resistance to weathering than granite. It is used for exterior and interior walls of buildings, floors, and for counter tops and table tops. NEOPARIÉS can also be formed into columns and curved corners, as it requires only a simple process to make a curved panel.

1. **Lighter and Stronger**
NEOPARIÉS is lighter and stronger than granite and more resistant to scratching and abrasion than marble. They are not subject to the fissure and fracture patterns that commonly result from the quarrying of stone. With a greater bending strength, they can fabricated into thinner panels than natural stone.

2. **Easily Formed into Curved Panels**
NEOPARIÉS can be re-formed into a wide range of convex and concave radii panels, resulting in greater design flexibility at lower cost than hewn stone.

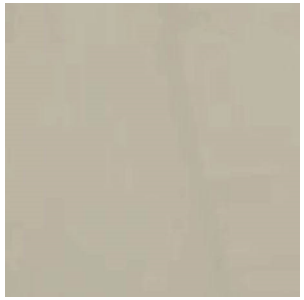
3. **Impermeability/Minimum Maintenance**
NEOPARIÉS is virtually impermeable and are not subject to freeze-thaw damage, penetration by rust, mortar or other staining substances. Moisture absorption, as a design consideration, has been eliminated. With NEOPARIÉS, contaminants are easily removed during regular building maintenance. Even graffiti can be cleaned without difficulties.

4. **Low Thermal Expansion**
With an extremely low coefficient of expansion, NEOPARIÉS is not subject to thermal cracking that can affect other cladding materials.

5. **Weather Resistance**

NEOPARIÉS is significantly more resistant to acids, alkalis, oils and other chemical substances than either marble or granite. Unlike stone, their surface and physical properties are not degraded even after years of exposure to environmental pollutants, including acid rain.

Products:



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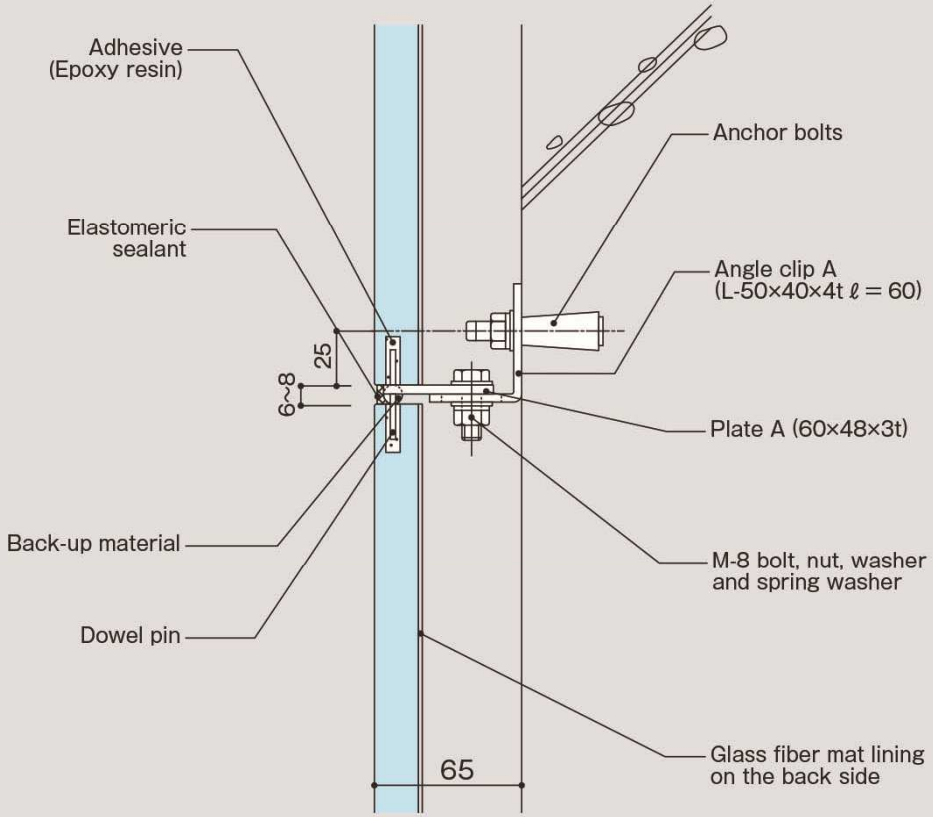
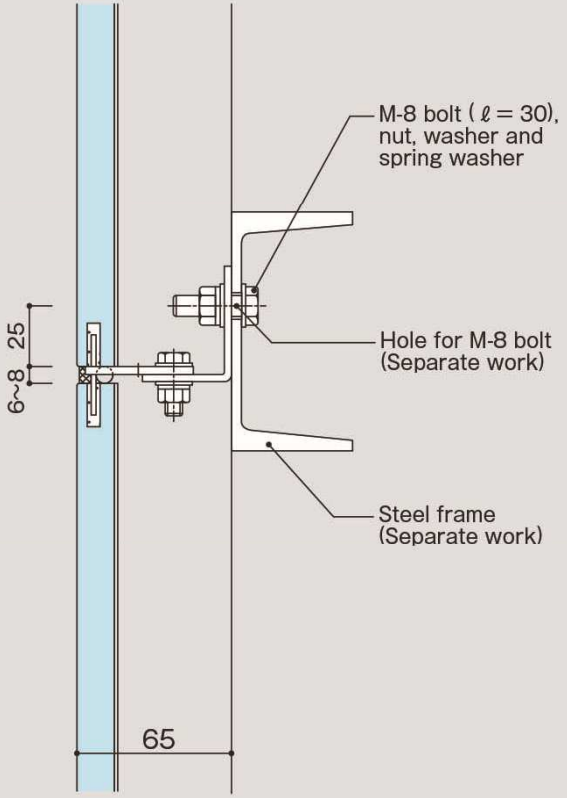
Standard installation details for flat exterior walls

Applied location : Flat exterior walls / Interior walls over 4m high

Unit : mm



Concrete structure



Steel frame structure

Characteristics of Neoparés and Natural Stones

Characteristics / Materials			Neopariés White	Marble	Granite
Lighting	Whiteness Degree (L-Value) 〔1〕		94	approx. 90	—
	Diffuse Reflection Rate	(%)	80	42	44
	Regular Reflection Rate	(%)	4	4	4
Thermal	Thermal Expansion Coefficient	($\times 10^{-6}$/K)	6.1	7.0	7.0
	Thermal Conductivity	(W/m·K)	1.6	2.3	2.1
	Specific Heat	(J/kg·K)	710	750	750
Mechanical	Specific Gravity		2.7	2.7	2.7
	Bending Strength	(N/mm^2)	41	11	14
	Young's Modulus	($\times 10^4$N/mm^2)	8.6	7.5	5.1
	Mohs' Hardness		5.5	3	5.5
Chemical	Acid Resistance 〔2〕	(mg/cm^2)	0.2	267	26.2
	Alkali Resistance 〔3〕	(mg/cm^2)	0.7	7.8	2.6
	Seawater Resistance 〔4〕	(mg/cm^2)	0.1	0.2	0.2
	Water Absorption Rate 〔5〕	(%)	0.0	0.3	0.4
	Freeze Resistance 〔6〕	(%)	0.0	0.2	0.3

〔1〕 One of the three elements of color. Index to represent brightness (whiteness). (100:Perfect white⇔0:Perfect black). In-house measured data.
〔2〕 Weight loss of test piece of 25×25×5mm after 24-hour immersion in 1% H_2SO_4 solution of 90℃.
〔3〕 Weight loss of test piece of 25×25×5mm after 24-hour immersion in 1% NaOH solution of 90℃.
〔4〕 Weight loss of test piece of 25×25×5mm after 24-hour immersion in simulated seawater of 90℃.
〔5〕 Weight increasing rate of test piece of 25×25×15mm after 48-hour immersion in water.
〔6〕 Weight loss of test piece of 15×15×10mm after 25 cycles : immersion of test piece in water of 25℃ for 2 days=expose for 4 hours in a temperature of -20℃.

The above figures are measured values, not guaranteed.

Project photos:

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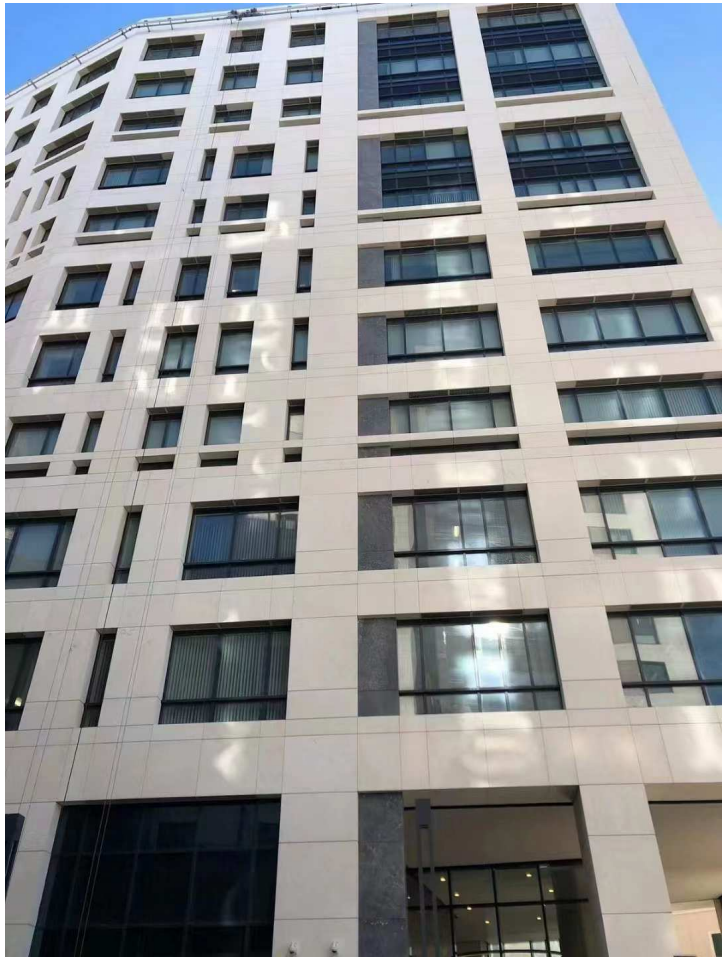

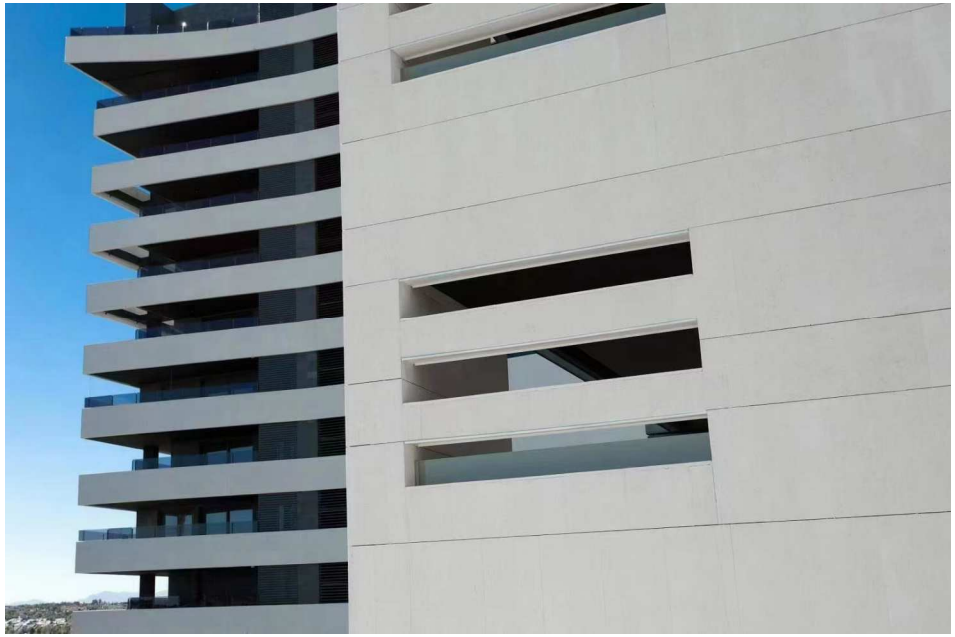

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