1. Description
Viroc is a cement bonded particle board. It is a composite material, composed by a compressed and dry mixture of pine wood particles and cement. Its appearance is not homogeneous. A natural characteristic of the product is to have patches of various shades. The Viroc panel is produced in different colours.

2. Relative humidity effect
Viroc boards have small size variations due to the air relative humidity. The expected maximum size variation of the board for indoors would be +0.5% to -1.0%. The fastening system near the edges will have to take into account those size variations.

3. Application Conditions
Before installation, the board must be exposed for 48 hours to the relative humidity of the location where it will be applied and should be left in a dry location out of direct sunlight. It is the installer’s responsibility to check the support structure conditions [distance between supports and respective width] for the correct application.

4. Support structure
Treated dry pine beams or metallic profiles of galvanized steel can be used to support the boards. The distance between profiles should never exceed 625mm. The structure that will support Viroc boards must be aligned and leveled and the board cannot be warped.

5. Fastening
The boards are fixed with screws or rivets, simple galvanized elements can be used. The distance between the holes to the edges is 35 x 50 mm, minimum.

6. Surface treatment
Viroc boards may be protected with paint or varnish. Before applying varnish the panel surfaces must be completely clean and dry, free from grease, dust or surface salts. The surface should be cleaned by polishing with a cleaning disc. Viroc S.A. has suitable cleaning discs available that can be supplied on request. The first coat must cover both sides and edges of the board. The other coats need only to be applied on exposed face and edges. For more information, see the application of paints and varnishes procedures.

Notes & recommendations
Please consult Viroc Product Data Sheet to know the board tolerances and properties. Always check standard safety procedures and local legislation requirements. Please contact the finishing suppliers for application procedures.
7. Partition walls

7.1 Board fastening

7.2 Distance of the screws to the edges

7.3 Fastening elements for metallic structure

IMET C8 - 4.2x32

Rivet C16 - 5x21

Alternative screws for metallic structure

EMET V12-A16 - 5.5x32

EMET C14-A16 - 5.5x50
7.4 Fastening elements for wood structure

**IMAD C12-5.5x38**

![IMAD C12-5.5x38](image)

**NAIL 1x35**

![NAIL 1x35](image)

**Alternative screw for wood structure**

**EMAD C12-A16-4.8x38**

![EMAD C12-A16-4.8x38](image)

7.5 Profiles

**Steel:** Profile thickness should be 1mm minimum, galvanized according to Standard EN10326 Class Z 275 minimum.

**Profile MT90**

![Profile MT90](image)

**Profile MT70**

![Profile MT70](image)

**Profile MT52**

![Profile MT52](image)

**Profile CN92**

![Profile CN92](image)

**Profile CN72**

![Profile CN72](image)

**Profile CN54**

![Profile CN54](image)

**Wood:** Class resistance C18 according to Standard EN338.
7.6 Support structure

1250mm

max. 625mm

max. 625mm

max. 625mm

max. 625mm
Installation Instructions: Viroc

7.7 Horizontal sections

Metallic structure

Wood structure
7.8 Horizontal sections (details)

Detail A - Metallic structure
Fastening joints between boards

Detail B - Metallic structure
Fastenings in board central zone

Detail C - Wood structure
Fastening joints between boards

Detail D - Wood structure
Fastenings in board central zone

Viroc board
Screw
Structural element
Acoustic layer

Acoustic insulation
Structural element
Acoustic layer
Viroc board

35mm

35mm
7.9 Vertical section

**Metallic structure**
- Screw
- Acoustic layer
- Viroc board
- Acoustic insulation
- Structural element

**Wood structure**
- Screw
- Acoustic layer
- Viroc board
- Acoustic insulation
- Structural element
8. Sound insulation

Airborne sound insulation index:  $R_w [C; Ctr] = 47 [-4; -11] \text{ dB} - \text{ EN ISO 140-3}$

| $f$ (Hz) | 100 | 125 | 160 | 200 | 250 | 315 | 400 | 500 | 630 | 800 | 1000 | 1250 | 1600 | 2000 | 2500 | 3150 | 4000 | 5000 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| R(dB)   | 17.5| 25.3| 36.2| 39.7| 39.9| 45.4| 47.0| 48.0| 49.7| 51.2| 49.7 | 49.1 | 47.5 | 49.1 | 56.7 | 58.8 | 58.5 |
9. Internal Wall Cladding

9.1 Board fastening

9.2 Distances to edges

9.3 Fastening elements for metallic structure

IMET C8 - 4.2 x 32

Rivet C16 - 5 x 21

Alternative screws for metallic structure

EMET V12 - A16 - 5.5 x 32

EMET C14 - A16 - 5.5 x 50
9.4 Fastening elements for wood structure

IMAD C12-5.5 x 38

Alternative screw for wood structure

EMAD C12-A16-4.8 x 38

9.5 Profiles

**Steel:** Profile thickness should be 1mm minimum, galvanized according to Standard EN10326 Class Z 275 minimum.

Profile U90 - 42 x 90 x 42

Profile Omega45 - 25 x 40 x 45 x 40 x 25

**Wood:** Class resistance C18 according to Standard EN338.
9.6 Support structure

max. 1500mm

max. 625mm

max. 625mm

max. 625mm

max. 625mm
9.7 Horizontal sections

Steel structure

[Diagram of Steel structure with labeled parts: Detail A, Detail B, Metallic profile, Screw, Viroc board, Screw, Metallic profile]

Steel structure [alternative]

[Diagram of Steel structure [alternative] with labeled parts: Detail C, Detail D, Viroc board, Bracket, Screw, Metallic profile, Bracket, Screw, Metallic profile]

Wood structure

[Diagram of Wood structure with labeled parts: Detail E, Detail F, Wood profile, Screw, Viroc board, Screw, Wood profile]
9.8 Horizontal sections [details]

Detail A (steel structure)
Joints between boards

Detail B (steel structure)
Board central zone

Detail C (steel structure, alternative)
Joints between boards

Detail D (steel structure, alternative)
Board central zone

Detail E (wood structure)
Joints between boards

Detail F (wood structure)
Board central zone
Installation Instructions: Viroc

Detail of the joint

3mm

Backer rod

3 3 3mm

3mm
9.9 Vertical sections

Steel structure

Steel structure (alternative)

Wood structure

- Screw
- Metallic profile
- Viroc board
- Screw
- Bracket
- Viroc board
- Metallic profile
- Screw
- Bracket
- Metallic profile
- Viroc board
- Screw
- Wood profile
- Viroc board
- Screw
- Wood profile
- Viroc board
- Screw
- Wood profile
- Viroc board