Standard Specifications for Installation of OMNIROC® for Walls

SECTIONS 06100, 09250

1. GENERAL

1.01 SUMMARY OF WORK

A. Materials shall be OMNIROC® cement board panel, as manufactured by Omniroc, Inc. and supplied by an authorized distributor.
B. All OMNIROC® panels shall be selected from the manufacturers' load tables to carry the project live load design over a maximum of 24″ on center support spacing while limiting deflection to a maximum of L/240 as determined by the project architect & engineer.
C. OMNIROC® panel to be of minimum 1/2″ (12mm) thickness and 4′ x 8′ (1220mm x 2440mm) dimension.
D. Comply with applicable building codes for wind, seismic, snow, uniformly distributed live-loads and other loading requirements as determined by the project architect and engineer.
E. OMNIROC® panels shall have the following minimum mechanical properties:

1. Density: ±89.6 lbs/ft³
2. Modulus of Elasticity: > 1,509,400 psi
3. Shear Strength: > 5,375 psi
4. Tensile Strength (parallel to surface): > 1,067 psi
5. Compressive Strength: > 4,770 psi

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 05200, Metal Joists
B. Section 05400, Cold-Formed Metal Framing
C. Section 06100, Rough Carpentry
D. Section 09100, Metal Support Assemblies
E. Section 09300, Tile
F. Section 09600, Flooring

1.03 DESCRIPTION OF OMNIROC® PANEL

A. OMNIROC® panel is a structural cement board panel mechanically fastened to framing members as a substrate.
B. OMNIROC® panel shall have a finish applied over it.

1.04 PERFORMANCE REQUIREMENTS

A. Surface burning characteristics: OMNIROC® panels shall be Class A in accordance with ASTM E84 / UL 723 having achieved 0 flame spread and 0 smoke development indices in laboratory test samples.
B. OMNIROC® panel has passed the ASTM E136 test for a minimum duration of ten minutes.

1.05 SUBMITTALS

A. Submit to the project architect or design professional a copy of OMNIROC® panel product and installation specifications and one product sample measuring 3″ x 5″ minimum.

1.06 QUALITY ASSURANCE

A. Contractor shall have successfully installed wall-sheathing products of a similar type as this project. These past projects shall have resulted in construction with a record of successful in-service performance.
B. At frequent intervals during construction, the job site may be visited by the Owners' representative, general contractor or construction manager to confirm that OMNIROC® panel is being installed per this specification.

1.07 DELIVERY, STORAGE, AND HANDLING

A. OMNIROC® panels are supplied by authorized distributors of Omniroc, Inc. and normally delivered to site on factory pallets bound with plastic sheet protection, and edge protection, to facilitate forklift handling.
B. OMNIROC® panel shall be stored indoors on leveled supports not to exceed 32″ on centers. If temporarily stored outdoors boards must be elevated above ground and protected from the weather with waterproof covering. Stacking of pallets should always be on solid stable base and never be stacked higher than 5 pallets high.
C. Acclimatize OMNIROC® panel by storing on site not less than three days prior to installation.
D. All materials supplied by others shall be delivered and stored according to their instructions.
E. Deliver, store & handle materials to prevent breakage, warping or stain damage caused by moisture.
F. When transporting loose OMNIROC® panels by truck they must be laid flat and fully protected against edge damage and protected from weather with waterproof covering.
G. When hand carrying single OMNIROC® panels, they must be carried on edge with the short side held vertically.
H. Damaged or deteriorated materials shall be removed from the premises.
I. Material Safety Data Sheets shall be available for all materials.

1.08 PROJECT CONDITIONS

A. Framing to receive OMNIROC® panel shall be structurally sound, free from bows, twists or other malformations and in general compliance with local building code requirements. Damaged framing shall be replaced before installation of OMNIROC® panels.
B. During installation of OMNIROC® panel the temperature shall be at least 0º F during installation if mechanically fastened. Prior to the application of wall finishes OMNIROC® panel must be conditioned at the same temperature as required for the wall finishes for at least 48 hours. Wall finishes shall not be applied over OMNIROC® panel that is wet, frozen or contains frost.

1.09 SEQUENCE AND SCHEDULING

A. Sequence the installation of OMNIROC® panel with related work specified in other sections to ensure that the wall assemblies are protected against damage or abuse during and after construction.
B. Provide sufficient labor and equipment to properly install all materials.

1.10 PRODUCT WARRANTY

A. OMNIROC® panel is warranted by the manufacturer for a period of 10-years from date of material purchase to be free from defects in workmanship and materials under normal use. Refer to product warranty for complete terms.

2. PRODUCTS

2.01 MATERIALS

A. Wall Framing: Shall meet local building code requirements for use in the wall system. Follow manufacturers' installation instructions.
B. Wall Sheathing: Minimum 1/2˝ (12mm) thickness OMNIROC® panel as manufactured by Omniroc, Inc. and supplied by an authorized distributor.
C. Fasteners: Use corrosion resistant self-countersinking head screws such as Grabber Part No. CHS8200JBW, or equal. Fasteners to be minimum #8 diameter with self-drilling points. Length of fastener to equal 2-1/2 to 3 times the board thickness. Follow manufacturers' installation instructions.

3. EXECUTION

3.01 FRAMING

A. The wall framing and other framing components must be designed to meet the strength and deflection criteria as determined by project architect & engineer and specified in the contract documents.
B. The attachment flange or bearing edge shall be a minimum 1 1/2″ wide, or Doubled up at OMNIROC® panel board edges.
C. Metal framing shall be a minimum 20 gauge.
D. Framing shall be spaced a maximum of 24″ on centers.
E. All blocking, bracing and other framing components must be installed prior to the installation of OMNIROC® panel.
F. Framing must be of good quality, free of bows, twists or other malformations.

3.02 SHEATHING APPLICATION

A. Deflection of panels shall be limited to L/240.
B. Provide a 1/8″ vertical & horizontal joint between panels with the exception of tongue & groove edges.
C. Install panels with long dimensions vertical. All panel joints must occur over a framing member. All panel edges are to be supported by a framing member.
D. Cut panel to length as needed to ensure butt ends are centered on the framing member.
E. Panels shall be cut to size with a circular saw equipped with cement cutting blade and a dry dust collection device or a water-dispensing device that limits the amount of airborne dust. Wear safety glasses and a NIOSH approved dust mask when cutting the panel. Collected dust shall be disposed in a safe manner and in compliance with local, state and federal ordinances.
F. A support framing member must always occur behind fastener location.
G. Fasten each panel to framing after it has been placed using the following fastening schedule:
    1. Fastener placement shall be a maximum of 12″ on center along all supports at panel joints, edges and in the field of the panel.
    2. Fastener placement shall be a minimum 1/2″ from all panel edges.
    3. Fastener placement shall be a minimum 2″ from panel corners. Off-set fasteners to avoid 45 degree fastener placement at board corners (to prevent cracking). Best practice is 2″ fastener corner distance up the first edge, and 4″ fastener corner distance down the adjacent edge.
    4. Begin fastening at one end and fan out across the panel. Do not fasten all the corners first.
    5. Drive fasteners so the heads are flush with the surface of the board. Do not overdrive fasteners.
H. In exterior applications, control joints (where applicable and as designed by architect and/or engineer) shall be utilized to prevent transfer of any movement or stress to exterior finish systems. Through-wall control joints shall be

designed to isolate a maximum of 250 sq. ft. of wall area. Provide separate framing member at each side of control joint. Install per manufacturers instructions. If no finish materials are applied, and at the architect and/or engineer's option, this requirement may be omitted.

I. Do not nail or screw any collateral building materials to panels without a secure backing surface behind the panel to receive the fastener.

J. Cutouts in the panels should be made before installing the panel whenever possible. If a cutout is required after the panel is installed, set the depth of the saw blade to ensure that the framing is not scored. Continuous structural perimeter support such as blocking, bracing and bridging is required at all cutouts and/or penetrations larger than 4″ in either direction.

3.03 CLEAN-UP

A. Left over material shall be removed from the job site.
B. Remove foreign material from surface, including dust.

3.04 SAFETY

A. Avoid concentrated point loads on OMNIROC® panel by referring to concentrated load tables and as determined by project architect & engineer.
B. Measures shall be taken to distribute concentrated and point loads on the system during construction such as the utilization of structural building panels such as plywood or OSB over multiple spans.
C. Workers must take extra care to avoid impacts that can cause deforming marks or even penetrations in the sheathing surface of these panels and will need repair.

3.05 WALL FINISH

A. Before the application of finish materials, ensure that all panels are properly installed with the fastener head driven flush or slightly below the surface of the panels. Fill all voids and depressions with compatible patching compounds.
B. Joints:
    1. For exterior application use premixed elastomeric joint caulking or sealant as approved by the synthetic coatings manufacturers' finish system. Use only fully elastomeric synthetic coatings.
    2. For interior applications design for visible panel joints or use metal/plastic batten cover strips at panel joints.
C. Vapor barriers, membranes, sheathings, claddings, accessories, etc. may be secured to OMNIROC® panel by following the installation instructions provided by each product's respective manufacturer.
D. Surface Treatments: OMNIROC panel has a PH greater than 11 and therefore alkali resistant coatings may be required. Use of an alkaline-resistant primer may be used prior to application of traditional coatings such as paints/stains. It is advisable to refer to the coating manufacturer in all instances. For surface

treatments that are not vapor or moisture permeable, the reverse and all edges of the panel should also be treated in the same way to avoid the panel being unbalanced and exhibiting warping under extreme conditions of humidity variance.

E. Ceramic title should be installed over a crack isolation or cleavage membrane applied to OMNIROC® panel. Use latex modified thin set mortar that complies with ANSI Standards for application of the tile to the membrane unless the tile or membrane manufacture directs the use of an alternate material that complies with ANSI Standards.

END OF SECTION