

MR Walls

CNC-CARVED CORIAN® SOLID SURFACE WALL SYSTEM

PRODUCT SPECIFICATION — CSI Section 09 77 00 — Special Wall Surfacing

MR Walls is a CNC-carved architectural wall system fabricated from DuPont™ Corian® Solid Surface. Proprietary parametric software and precision CNC machining produce three-dimensional sculpted surfaces that are cut into interlocking puzzle-piece panels and assembled on-site into seamless, large-scale wall installations. The patented joining system conceals all seams within the carved design, producing a continuous monolithic surface of unlimited scale.

Applications include feature walls, lobbies, corridors, column wraps, ceilings, healthcare environments, hospitality, commercial interiors, and exterior cladding (see separate MR Walls Exterior Specification).

Manufacturer	MR Walls Santa Monica, CA
Web / Contact	mrwalls.io • orders@marioromano.com
DuPont Partnership	Exclusive North American partner for architectural Corian® wall surfaces

01 MATERIAL SPECIFICATION

Base Material	DuPont™ Corian® Solid Surface
Composition	≈1/3 acrylic resin (PMMA) + ≈2/3 alumina trihydrate (ATH)
Standard Thickness	1/2" (12 mm)
Panel Weight	3.5 lb/ft² (17.1 kg/m²) at 1/2"
Surface	Non-porous, homogeneous, through-body color
Density	1.73 g/cm³ (108 lb/ft³) per DuPont Product Bulletin K-27478
Water Absorption	<0.04% (ASTM D570)

Ref: DuPont Corian® Solid Surface Product Bulletin K-27478 for complete material data.

02 FIRE PERFORMANCE

Class A fire rated

Test	Result	Reference
ASTM E84 Flame Spread Index	≤25	Class A (Class 1)

ASTM E84 Smoke Developed Index	≤450	Pass
NFPA 286 Room Corner Test	Pass	Full-scale fire test
Smoke Toxicity	No toxic halogenated gases	DuPont Product Bulletin

Corian® Solid Surface is accepted under IBC for solid surface applications.

03 MECHANICAL & PHYSICAL PROPERTIES

Property	Value	Test Method
Flexural Strength	9,500 psi (65 MPa)	ASTM D790
Flexural Modulus	1,450,000 psi (10,000 MPa)	ASTM D790
Tensile Strength	6,000 psi (41 MPa)	ASTM D638
Izod Impact (notched)	1.4 ft-lb/in	ASTM D256
Barcol Hardness	58–62	ASTM D2583
Thermal Expansion	1/32" per linear foot	ASTM E228
Max Continuous Temp	212°F (100°C)	—
Slip Resistance (Dry CoF)	≥0.5 (matte finish)	ASTM D2047
Slip Resistance (Wet CoF)	TBD	ASTM D2047

All values per DuPont Corian® Solid Surface Product Bulletin K-27478.

Carved surfaces may exhibit enhanced slip characteristics than flat surfaces; project-specific testing recommended for flooring transitions.

04 DURABILITY & IMPACT RESISTANCE

Corian® Solid Surface is engineered for high-traffic commercial environments. The material is impact-resistant, scratch-repairable, and maintains its appearance over decades of use. Key durability characteristics:

- Scratch and gouge damage is repairable in the field by sanding (220–400 grit)
- Through-body color: no surface coating to chip, peel, or delaminate
- Non-porous: does not support the growth of mold, mildew, or bacteria with proper cleaning
- Stain-resistant; deep stains removable with acetone or fine abrasive
- 25+ year life expectancy (per Declare Label DUP-0001)

Ballistic-Bullet Proof Performance: Corian® panels laminated to 3/4" plywood substrate provide rated ballistic resistance (tested by H.P. White Laboratories, Inc.). At 1/2" thickness, panels withstand .22 LR, .38 Special (standard velocity), and .45 ACP in multi-shot testing. At 3/4" thickness, panels meet UL 752 Medium Power and BS 5051 Level

G0/G1 ratings, stopping 9mm Parabellum and .357 Magnum rounds. Consult manufacturer for security-rated wall assemblies.

05 ACOUSTIC PERFORMANCE

MR Walls three-dimensional carved surfaces scatter and diffuse reflected sound waves across a broad frequency spectrum, reducing flutter echo and harsh reflections compared to flat, hard wall surfaces. The irregular surface geometry created by CNC carving acts as a passive acoustic diffuser;breaking up specular reflections and distributing sound energy more evenly throughout a space.

- Sculpted geometry diffuses sound across multiple angles and frequencies
- Reduces flutter echo in parallel-wall conditions (lobbies, corridors, conference rooms)
- Carve depth and pattern density influence diffusion characteristics
- NRC (absorption) testing: TBD;contact manufacturer for project-specific acoustic consultation

Note: MR Walls surfaces function primarily as sound diffusers, not absorbers. For combined absorption and diffusion, consult manufacturer about substrate-backed acoustic assemblies.

06 DESIGN OPTIONS

Spec Ready Collection: 30+ curated 3D sculpted designs, ready to specify and sized to project dimensions.

- Designs include Lake, Flame, Seattle, Nazare, Palisades, Cloud, Hex, Radiant, Feathers, Droplet, Honey, Reeds, and many more.
- Full catalog at mrwalls.io/spec-ready-designs

Studio Designs: Bespoke sculpted patterns developed in collaboration with the MR Walls design team.

- Client provides concept, inspiration image, logo, or sketch.
- MR Walls produces 3D renderings and shop drawings for approval.
- Learn more at mrwalls.io/studio-designs

Colors: Available in the full DuPont™ Corian® Solid Surface color library (30+ colors).

- Signature color: Glacier White the primary color for backlit applications.
- Full palette at corian.com/colors-of-corian.
- Note: natural nominal color variation exists between production sheets.

07 PANEL SIZES, TOLERANCES & FABRICATION

Slab Dimensions	Puzzled pieces are precision-cut to project-specific shapes. No piece exceeds 143" in any single direction. Width varies by design layout and Corian® color availability.
Sheet width	30" (all colors) · 48" (select colors) · 60" (select colors).
Standard Thickness	1/2" (12 mm)
CNC Carve Depth	Up to 3/8" (9.5 mm) in 1/2" material
CNC Dimensional Tolerance	±1/64" (0.4 mm)
Interlocking Piece Size	Optimized per project by proprietary software
Maximum Wall Coverage	Unlimited (modular interlocking system)

08 INSTALLATION

Substrate	Level 3 finish or higher. Plywood backing may be required for walls exceeding 12' in height.
Substrate Condition	Plumb, level, dry, free of contaminants
Primary Attachment	100% silicone up to 12' height interior
Supplemental Attachment	Concealed screws or Z-clips for over 12' height or exterior.
Panel Joinery	Color-matched Corian® joint or color matched silicone
Trimmability	Corian® can be cut, drilled, and routed in the field using standard woodworking tools. Circular saws, jigsaws, routers, and standard drill bits are suitable. Always use dust collection.
Panel Identification	Each piece individually labeled with project-specific installation map

*Each panel piece interlocks in sequence per the manufacturer's installation map.
For exterior applications, refer to MR Walls Exterior Specification.*

09 CERTIFICATIONS & COMPLIANCE

ASTM E84	Class A (Class 1) fire rating
GREENGUARD™	Certified — UL 2818 low chemical emissions (Certificate 3143-410, exp. Nov 2026)
Declare Label	LBC Red List Free (DUP-0001, exp. May 2026)
NSF/ANSI 51	Food contact compliance
SCS Global Services	6–14% post-consumer recycled content certified
IBC	Compliant for solid surface wall applications
VOC Content	Not Applicable (solid material, not a coating)

Refer to DuPont for current certification documents. GREENGUARD and Declare labels are maintained by DuPont Specialty Products USA, LLC.

10 PATENTS

The MR Walls - Romano Studio, llc interlocking puzzle system is protected by three United States utility patents:

US Patent 10,732,596	Interlocking panel system for seamless architectural surfaces
US Patent 11,625,509	Methods for CNC-machined interlocking panel fabrication
US Patent 11,899,418	Advanced panel joining geometry for sculpted surfaces

11 CLEANING & MAINTENANCE

- Routine: Warm water, mild detergent (dish soap), soft cloth or sponge
- Stubborn stains: Non-abrasive household cleaners
- Deep stains: Acetone applied with soft cloth; rinse thoroughly after use
- Surface renewal: Sand with 220–400 grit sandpaper; entire surface can be professionally refinished
- Healthcare: Compatible with most hospital-grade disinfectants including bleach-based and hydrogen peroxide wipes. Refer to DuPont chemical resistance data.

12 SUBMITTALS

- Product data sheet (this document)
- Color samples: 4" x 4" minimum, or similar
- Design sample or 3D rendering of selected pattern.
- Shop drawings with panel layout, piece identification, and installation sequence
- Fire test reports (ASTM E84)
- GREENGUARD certificate, Declare label, SCS recycled content certificate
- Warranty documentation

13 WARRANTY

MR Walls installations carry a limited warranty covering manufacturing defects in CNC fabrication and panel joinery. DuPont™ Corian® Solid Surface material carries a separate 10-year limited product warranty from DuPont. Contact manufacturer for project-specific warranty terms.

RELATED SPECIFICATIONS

09 77 00 — Special Wall Surfacing

09 77 43 — Solid Surface Wall Cladding

07 42 43 — Composite Wall Panels (exterior)

See also: MR Walls Backlighting Specification (separate document)

MR Walls Exterior Specification (separate document)

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GREENGUARD™ is a trademark of UL LLC.

MR Walls interlocking panel system is protected under US Patents 10,732,596; 11,625,509; 11,899,418.

QUALITY ASSURANCE

MR Walls Product Specification – architectural wall system – March 2026

Source Limitation: Obtain all MR Walls panels from a single manufacturer (Romano Studio LLC).

Material: All panels fabricated from genuine DuPont™ Corian® Solid Surface only.

Mockup: For large projects the manufacturer recommends a physical approval sample prior to full production.

MR Walls provides project-specific installation maps and technical support for all projects.

This document is provided for specification purposes.

Contact the manufacturer to verify current data.

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