

ATHLETIC FACILITIES • CONTRACTOR & SUPPLIER

CRS PRODUCTS INTERNATIONAL 12.7 MM (1/2") TEMPERED GLASSWALL SPECIFICATIONS FOR "ULTRA-VUE PLUS"

Part 1 - Scope

1.1 Provide all labor, equipment, materials to furnish and completely install the glass walls, glass doors and court windows including glass and hardware where called for on drawings.

Part II - Materials

2.1 MANUFACTURER - CRS Products International Glasswall Systems, 150 Gate 5 Road, Suite 204, Sausalito, California, U.S.A. 94965 Telephone (415)543-4113 Fax (415)322-0818 Toll Free 1-800-661-4174, 10565 - 111 Street, Edmonton, Alberta, Canada T5H 3E8 Telephone (780)484-2786 Fax (780)484-5827, 419 Avon Crescent, Oakville, Ontario, Canada L6J 2T1 Telephone (416)283-3452 Fax (416)283-3452.
Glass - 12.7 mm (1/2") clear float tempered with all exposed edges polished. Conforming to Federal Specifications: DD-G-451C, DD-G-001403, ANSI Z97.1 - 1975, CPSC 16 CFR 1201.

2.2 GLASS-TO-GLASS CONNECTIONS

All hardware for glass-to-glass connections shall be Hi-Tensile ML Black Nylon with a tensile strength of 9,000 to 12,000 psi and a Durometer hardness of D80-90. White fittings available on request. Metal fittings mounted on glass shall not be acceptable. DOOR HARDWARE - Door shall be locked by means of a positive locking system with a lever-set on the exterior and flush ring pull on the interior. Lock housing to be clear anodized finish. Finger hole in door to actuate lever on exterior of door is not acceptable.

- 2.3 DOORS Doors shall be 2134 mm (7') tall and must be side hinged.
- 2.4 PERIMETER CHANNELS Clear anodized aluminum.
- 2.5 FIN BRACKETS Fin brackets shall be steel with clear anodized aluminum cover plates or silver chrome plated, bronze plated or 24 karat gold plated.
- 2.6 JOINT SEALANT G.E. 1200 or equal

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Part II - Materials (Continued)

2.7 GLASS MARKINGS

Rear glass walls shall have CRS "ULTRA-VUE PLUS" (Low Iron Extra Clear Glass) coating for all court glass where specified on the plans by covering the glass with white dots consisting of 16 lines per inch ceramic frit dot screen, with 50% opaque coverage to the court side surface of the glass. "ULTRA-VUE PLUS" is designed for optimal playability providing players with superior depth perception and increased ball visibility. Discrete defects or checkerboard effect pattern will not be accepted. "ULTRA-VUE PLUS" - Is "burned" permanently into the surface of the glass during the tempering process, providing a consistent surface that ensures desirable ball behaviour.

Systems utilizing applied or glued on products to either the interior or exterior surfaces of the glass are unacceptable.

Part III - Performance

- 3.1 Walls may deflect under impact of players if it is necessary to do so. Limits of deflection are as follows with the equivalent impact of a 200 lb. man moving at 3048 mm (10') per second with a normal coefficient of absorption of 47%.
 - A. 1-1/4" for glass walls at the center of impact.
 - B. For doors, the glass thickness plus 3 mm (1/8") at an impact velocity of 3048 mm (10') per second or the thickness of glass plus 12.7 mm (1/2") at 4572 mm (15') per second.
- 3.2 Install walls, doors and related work as specified and as detailed on the drawings using experienced workmen. Set walls plumb, level, square and true and securely anchored in place, with all joints siliconed smooth. Provide all anchors, clips, fasteners and accessories for complete installation.

Part IV - Warranty

4.1 All glass walls shall be structurally sound and free from defects in material and workmanship under normal use and service for a period of five (5) years after the date of delivery of the wall and fixtures to the purchaser.

CRS PRODUCTS INTERNATIONAL 12.7 MM (1/2") TEMPERED GLASSWALL SPECIFICATIONS

Part I - Scope

1.1 Provide all labor, equipment, material to furnish and completely install the glass walls, glass doors, and court windows including glass and hardware where called for on drawings.

Part II - Materials

- 2.1 MANUFACTURER CRS Products International Glasswall Systems. 321 S. Main Street, Unit 536, Sebastopol, California, U.S.A. 95472 Telephone (415) 543-4113 Fax (415) 543-4114 Toll Free 1-800-661-4174 10021 169 Street, Edmonton, Alta., Canada T5P 4M9 (780) 484-2786 Fax (780) 484-5827 419 Avon Crescent, Oakville, Ont., Canada L6J 2T1 Telephone (416) 283-3452 Fax (416) 283-3452 Glass 12.7 mm (1/2") clear float tempered with all exposed edges polished. Conforming to—Federal—Specifications: DD-G-451C, DD-G-001403, ANSI 297.1 1975, CPSC 16 CFR 1201. Heat soaked glass available upon request.
- 2.2 GLASS-TO-GLASS CONNECTIONS

All hardware for glass-to-glass connections shall be Hi-Tensile ML Black Nylon or white with a tensile strength of 9,000 to 12,000 psi and a Durometer hardness of D80-90. White fittings available on request. Metal fittings mounted on glass shall not be acceptable. DOOR HARDWARE - Door shall be locked by means of a positive locking system with a lever-set on the exterior and flush ring pull on the interior. Lock housing to be clear anodized finish. Finger hole in door to actuate lever on exterior of door is not acceptable.

- 2.3 DOORS Doors shall be 2134 mm (7') tall and must be side hinged WITH COMMERCIAL ADJUSTABLE POWER EXPOSED DOOR CLOSURE. MEETS A.D.A. REQUIREMENTS.
- 2.4 PERIMETER CHANNELS Clear anodized aluminum.
- 2.5 FIN BRACKETS Fin brackets shall be steel with clear anodized aluminum cover plates or silver chrome plated, bronze plated or 24 karat gold plated.
- 2.6 JOINT SEALANT G.E. 1200 or equal
- 2.7 GLASS MARKINGS
 - A. Rear glass walls shall have CRS "ULTRA-VUE" coating for all court glass where specified on the plans by covering the glass with white dots consisting of 16 lines per inch ceramic frit dot screen, with 50% opaque coverage to the court side surface of the glass. "ULTRA-VUE" is designed for optimal playability providing players with superior depth perception and increased ball visibility. Discrete defects or checkerboard effect pattern will not be accepted.

ULTRA-VUE - Is "burned" permanently into the surface of the glass during the tempering process, providing a consistent surface that ensures desirable ball behaviour.

Systems utilizing applied or glued on products to either the interior or exterior surfaces of the glass are unacceptable.

- B. All rear walls are to have white etched or sandblasted lines 25 mm (1") on center for 610 mm (24") or 762 mm (30") in height with a thickness of approximately 3 mm (1/8"). Such markings are to be permanent.
- C. White logos are available sandblasted or etched. Specify if required.

PART III - PERFORMANCE

- 3.1 Walls may deflect under impact of players if it is necessary to do so. Limits of deflection are as follows with the equivalent impact of a 200 lb. man moving at 3048 mm (10') per second with a normal coefficient of absorption of 47%.
 - A. 11/4" for glass walls at the center of impact.
 - at an impact velocity of **3048 mm** (1/8") at an impact velocity of **3048 mm** (10') per second or the thickness of glass plus **12.7 mm** (1/2") at **4572 mm** (15') per second.
- 3.2 Install walls, doors, and related work as specified and as detailed on the drawings using experienced workmen. Set walls plumb, level, square and true and securely anchored in place, with all joints siliconed smooth. Provide all anchors, clips, fasteners and accessories for complete installation.

PART IV - WARRANTY

4.1 All glass walls shall be structurally sound and free from defects in material and workmanship under normal use and service for a period of five (5) years after the date of delivery of the wall and fixtures to the purchaser.

Specifications subject to change.

"THE MOST INNOVATIVE SYSTEMS AVAILABLE IN THE WORLD TODAY!"

CRS PRODUCTS INTERNATIONAL 321 S. MAIN STREET, UNIT 536 SEBASTOPOL, CALIFORNIA, U.S.A. 95472 TELEPHONE (415) 543-4113 FAX (415) 543-4114 TOLL FREE 1-800-661-4174 CRS PRODUCTS INTERNATIONAL 10565 - 111 STREET EDMONTON, ALTA., CANADA T5H 3E8 TELEPHONE (780) 484-2786 FAX (780) 484-5827

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May 17, 1999

Mr. Howie Rankin CRS Corporation 10021 - 169th Street Edmonton, Alberta T5P 4M9

Dear Howle:

Just a short note to tell you how pleased we are with our five (5) new international squash courts and the two (2) racquetball/squash courts, with your moveable glass back wall. All our members, as well as visiting squash players, have nothing but praise for the facility. Moreover, we have received many positive comments about the CRS "Ultraview" glass back walls. Not only does it make the facility bright and very attractive but it is also a very good and true playing surface.

Thank you very much for your help with this project.

Sincerely,

Al Grazys

Manager, Athletic Facilities

AG/dr



Diversified Sport Systems Inc.

Mr. Howard Rankin C.R.S. Products International 10021 - 169 Street Edmonton, Alta. TSP 4M9 June 15, 1998

Dear Mr. Rankin,

I would like to take this opportunity to thank you for your suggestion to McGill University, that ULTRA-VUE glass be installed on their squash and racquetball courts.

Both the staff and the players of the new facility at McGill are extremely pleased with the ULTRA-VUE installation, noting that from both a player and spectator standpoint, the glass allows no distraction to the players while spectators enjoy a scamingly clear glass view of the game.

We, in future, will use the McCill facility to promote the ULTRA-VUE system, and honestly believe it will be it welcome addition to any future installutions or existing court renovations.

Once again, thank you for all your help on this project, and we look forward to a long working relationable with the staff at C.R.S. Products International.

Yours truly.

Den Inc.

Gary Stratton General Manager

Centre de la Cité Pointe Claire, 1, rue Holiday, Tour Est, Niveau 5, Pointe-Claire, Québec H9R 5N3

Tél: (514)694-1005, Fax: (514)630-4966



December 1, 1998

Howard Rankin, CRS Products International Inc.

Dear Howard,

I am writing to compliment you on your new product; the Ultra-Vue Squash/Racquetball Courts. After seeing the courts, there is no doubt in my mind that the courts with the Ultra-Vue glass surface, are a positive development for the growth of squash and racquetball. From the spectator point of view, it will provide a great opportunity to view the game in another dimension.

I am delighted to feature these courts in Pittsburgh. The squash and racquetball community will appreciate this new development. There is also no doubt in my mind that it will enhance the teaching of squash and racquetball. I am always looking for innovative ways to promote squash and racquetball and these courts provide me a new avenue for introducing squash and racquetball via the local media.

I am just ecstatic that the sports complex at the new Oxford Athletic Club in the North Hills outside Pittsburgh will showcase the game in a way never seen before in this area. I anticipate that these courts will set a standard for viewing and playing squash and racquetball.

My compliments to you again for such a great product and I hope that we can install a few more in Pittsburgh.

Sincerely,

Duilio Costa, Squash Pro



