

**0524P CSR HIMMEL IN PARTITIONS - GLAZED****1 GENERAL****1.1 RESPONSIBILITIES****General**

Requirement: Provide CSR HIMMEL aluminium partition systems, as documented.

**Performance**

Strength and stability: To remain stable, and without rattle and signs of deflection or permanent deformation under normal conditions of use, including the slamming of doors.

Serviceability: To support imposed dead loads, seismic loads, wind loads, including designated eccentric loads and not to deflect in excess of the following, where H is the height of the partition:

- The lesser of H/240 or 30 mm for partitions subjected to wind loads and lined with flexible material.
- The lesser of H/360 or 20 mm for partitions subjected to wind loads and lined with brittle materials.
- H/500 for eccentric loads.

**1.2 DESIGN****General**

Designer: [complete/delete]

**Requirements**

Responsibility: [complete/delete]

Performance requirements: [complete/delete]

Authority requirements: [complete/delete]

**1.3 COMPANY CONTACTS****CSR Himmel technical contacts**

Website: [www.himmel.com.au/Contact-Us](http://www.himmel.com.au/Contact-Us)

**1.4 CROSS REFERENCES****General**

Requirement: Conform to the following:

- 0171 General requirements.

**1.5 MANUFACTURER'S DOCUMENTS****Product information**

Website: [www.himmel.com.au/Aluminium Systems - Product](http://www.himmel.com.au/Aluminium Systems - Product)

**1.6 INTERPRETATION****Definitions**

General: For the purposes of this worksection the following definitions apply:

- Partition - glazed: A partition system consisting of a suite of exposed sections forming door and window frames, ceiling channels, sills, glazing and accessories; and generally intended for use in conjunction with framed and lined partition systems.

**1.7 SUBMISSIONS****Certification**

Installed partitions: Submit a certificate from an independent testing authority as evidence that the partition system installed conforms to the documented weighted sound reduction index ( $R_w$ ).

Toughened glass: For each batch of glass, submit certification from the manufacturer as evidence of heat soaking.

**Fire performance**

Fire hazard properties: Submit evidence of conformity to PRODUCTS, **FIRE PERFORMANCE**,

**Fire hazard properties.**

**Operation and maintenance manuals**

Requirement: Submit on completion.

**Products and materials**

Manufacturer's data: Submit manufacturer's standard product literature for each partition type for each of the following:

- Impact resistance.
- Pressure resistance.
- Surface indentation resistance.
- Weighted sound reduction index ( $R_w$ ): To AS/NZS ISO 717.1.

**Samples**

Glazing materials: Submit samples of glazing materials, each at least 200 x 200 mm, showing specified visual properties and the range of variation, if any, for each of the following:

- Tinted or coloured glass or glazing plastics.
- Surface modified or surface coated glass.
- Patterned or obscured glass or glazing plastics.
- Ceramic-coated glass.
- Mirrored glass.

Lining materials: Submit samples of lining materials, each at least 200 x 200 mm, showing specified visual properties and the range of variation, if any, for each of the following:

- Gypsum plasterboard.
- Fibre-cement.

Glazing framing systems: Submit samples of the following:

- Prefinished production extrusions showing the limits of the range of variation in the selected finish, at least 100 mm long.
- Joints made by proposed techniques.
- Skirting, skirting duct, and skirting duct stop ends, returns and removable covers, at least 100 mm long.

**Shop drawings**

General: Submit shop drawings to a scale that best describes the detail, showing the following:

- Plans, sections and elevations of the installation.
- Full size sections of members and details of partition intersections and terminations.
- Dimensions, clearances, tolerances, and provision for expansion.
- Junctions and trim to adjoining surfaces.
- Doors (note if supplied by others) and frames, including door seals, door stops coordinated with documented door thicknesses.
- Coordination with scheduled door hardware.
- Glass types, thicknesses and glazing methods.
- Details of safety markings that make glass visible.
- Methods of fixing partitions.
- Details of acoustic treatments to joints.
- Method of providing reticulation of services, access to services, and service outlets.
- Performance data of components and assemblies.
- Specification of materials and finishes.

**Subcontractors**

General: Submit names and contact details of proposed manufacturers and installers.

Evidence of experience: Membership of the Association of the Wall and Ceiling Industry (AWCI) or evidence of experience, listing completed projects of similar size and complexity.

Substrate acceptance: Submit evidence of installer's acceptance of the wall, floor and ceiling substrate before starting installation.

**Warranties**

General: Submit warranties on completion, as documented.

## 1.8 INSPECTION

### Notice

Inspection: Give notice so that inspection may be made of the following:

- Set-out before installation.
- Framed and lined partitions ready to receive the framed and glazed component.
- Completion of installation.

## 2 PRODUCTS

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### 2.1 GENERAL

#### Product substitution

Other products: Conform to PRODUCTS, **GENERAL, Substitutions** in 0171 *General requirements*.

#### Storage and handling

Storage of glass and glazing materials: In a clean, dry area and unaffected by weather, to the manufacturer's recommendations. Protect from building materials and loose debris such as wet plaster, mortar, paint and welding spatter.

Handling glass: to the manufacturer's recommendations and without damage.

#### Product identification

General: Marked to show the following:

- Manufacturer's identification.
- Product brand name.
- Product type.
- Quantity.
- Product reference code and batch number.
- Date of manufacture.

### 2.2 FIRE PERFORMANCE

#### Fire hazard properties

Group number: To AS 5637.1.

### 2.3 TESTING

#### General

Impact resistance, glazed partitions: To withstand impact without permanent deformation, damage, failure of fastenings.

- Energy level (J): [complete/delete]
- Test method: Use the apparatus and procedure of the shot-bag test of AS/NZS 2208, Appendix D.

Impact resistance, lightweight partitions: To withstand impact without permanent deformation, damage, failure of fastenings.

- Drop height (mm): [complete/delete]
- Test method: Use the apparatus and procedure of the sand-bag test of ASTM E695.

Pressure resistance: To withstand a uniformly distributed load normal to the plane of the partition without permanent deformation or damage or excessive deflection:

- Load: [complete/delete]
- Test method: ASTM E72.

### 2.4 GLAZED PARTITIONS

#### General

System: CSR Himmel partition system comprising main frames, door frames, sills, ceiling channels and other extrusions and accessories to form a complete and finished system, as documented.

#### Frames

Aluminium extrusions: To AS/NZS 1866.

**Sealants**

General: Sealant types appropriate for the partition's documented acoustic rating and compatible with partition materials and building substrate.

**Tests**

Weighted sound reduction index ( $R_w$ ) for proprietary double glazed systems: Interpolation between test results for similar systems is acceptable, subject to the following:

- Dimensional (thickness or width) differences do not exceed a ratio of 1:1.5.
- Each tested system differs from the proposed system by not more than one variable from the following elements:
  - . Cavity: Width dimension.
  - . Cavity reveal: Acoustic absorption treatment.
  - . First panel: Glass type, glass thickness.
  - . Mounting: Type, seal type.
  - . Second panel: Glass type, glass thickness.

**2.5 CSR HIMMEL ALUMINIUM SYSTEM****A Series 104**

Description: 104 mm wide central line glazing design.

**A Series 132**

Description: 132 mm wide central line glazing design.

**C Series 45**

Description: 45 mm wide central line glazing design.

**DS Series 45**

Description: 45 mm thick swing and sliding doors to fit the CSR Himmel partition system.

**E Series 104**

Description: 104 mm wide edgeline glazing or twin glazing design.

**E Series 132**

Description: 132 mm edgeline glazing or twin glazing design.

**2.6 GLASS****Standards**

Glass type and thickness: To AS 1288, if no glass type or thickness is documented.

Materials and installation: To AS 1288.

Quality requirements for cut-to-size and processed glass: To AS/NZS 4667.

Terminology for work on glass: To AS/NZS 4668.

**Performance**

Glass: Free from defects which detract from appearance or interfere with performance under normal conditions of use.

Glazing plastics: Free from surface abrasions, and warranted by the manufacturer for 10 years against yellowing or other colour change, loss of strength and impact resistance, and general deterioration.

**Heat soaking**

Requirement: All toughened and heat strengthened glass products.

Standard: To EN 14179-1.

**Safety glazing materials**

Standard: To AS/NZS 2208.

Type: Grade A to AS 1288.

Certification: Required.

- Certification provider: An organisation accredited by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ).

**Glass identification**

Safety glazing materials: Identify each piece or panel, to AS 1288.

Heat soaked glass: Marked to EN 14179-1 or certified by the manufacturer to AS 1288 clause 3.8.2.

**Unacceptable blemishes in heat-treated flat glass (including tinted and coated glass)**

Standard: To AS/NZS 4667.

**Ceramic-coated glass**

General: Heat strengthened or toughened glass with a coloured ceramic coating fused to and made an integral part of the surface to ASTM C1048, condition B.

**2.7 GLAZING MATERIALS****General**

Requirement: Glazing materials including putty, glazing compounds, sealants, gaskets, glazing tapes, spacing strips, spacing tapes, spacers, setting blocks and compression wedges appropriate for the conditions of application and required performance.

**Glazing tapes**

Standards: To AAMA 800, Products coded 804.3, 806.3 or 807.3, as applicable.

**Jointing materials**

General: Provide recommended jointing and pointing materials which are compatible with each other and with the contact surfaces and non-staining to finished surfaces. Do not provide bituminous materials on absorbent surfaces.

**Primer**

Compatibility: Apply the recommended primer to the surfaces in contact with sealant materials.

**Extruded gaskets and seals**

Location or function: [complete/delete]

Material: Non cellular (solid) elastopressive seals as follows:

- Rubber products (neoprene, ethylene propylene diene monomer (EPDM) or silicone rubber): To BS 4255-1.
- Flexible polyvinyl chloride (PVC): To BS 2571, E type compounds, colour fastness Grade B.

**2.8 ALUMINIUM FRAME FINISHES****Powder coatings**

Standard: [complete/delete]

Colour: [complete/delete]

**Anodised**

Thickness: 10 microns.

Finish: Clear anodized satin finish.

**2.9 PLENUM BAFFLES****Application**

Requirement: Plenum baffles that maintain documented fire-resistance level and acoustic performance of the partitions.

**Types**

Impregnated vinyl: Lead impregnated vinyl sheeting hung as a curtain from the slab soffit.

Plasterboard: Plasterboard sheets bonded together (if more than one layer).

Bulk insulation: MARTINI EASY BAFFLE batts compressed between the top of the partition and the slab soffit.

**3 EXECUTION**

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**3.1 PREPARATION****Substrate**

General: Prepare the substrate to receive the partitions.

Carpet: Fix bottom tracks over polyethylene film. Prevent carpet threads from pulling if drilling or installing fasteners.

**Protection**

General: Protect existing work from damage during the installation and rectify any damage. Provide temporary coverings if required.

**Set-out**

General: Set out the partition grid on the centreline of framing members, and to coincide with the ceiling grid and other major building grid, as applicable.

**3.2 INSTALLATION****General**

Requirement: Conform to manufacturer's recommendations and assembly details.

**Frame erection**

Frames: Install main frames, sills, ceiling channels, door and window frames and other framing members as follows:

- Plumb, level, square, straight and true.
- Fixed or anchored to the building structure.
- Isolated from any building loads, including loads caused by structural deflection or shortening.
- Joints tightly fitted and neatly aligned.
- Door and window openings accurately sized.
- Use concealed fixings.

**Sealant**

Acoustic sealant: If documented or if required to maintain rated acoustic performance, bed sill and ceiling channels in acoustic sealant.

**3.3 PARTITION GLAZING****Glass processing**

Processing: Perform required processes on glass, including cutting, obscuring, silvering and bending. Form necessary holes, including for fixings, hardware, equipment, access openings and speaking holes. Process exposed glass edges to a finish not inferior to ground arised.

**Framed glazing**

Assembly: Provide proprietary glazing beads and resilient (PVC, butyl or similar) glazing tapes, gaskets and inserts, to hold the glass firmly without distortion and to withstand the documented loadings.

**3.4 PLENUM BAFFLES****Baffles**

General: Install plenum baffles tightly butted to building structure, service ducts, pipes and conduits and to the top of the partition or the top of the suspended ceiling directly above the line of the partition. Seal joints, penetrations and intersections and maintain the required performance.

**Acoustic rated partitions**

General: If a suspended ceiling of equivalent sound insulation rating is not provided, either extend the partitions to the underside of the structural soffit, or provide acoustic plenum baffles. The ceiling and baffle to provide a combined rating equivalent to the partition rating.

**3.5 COMPLETION****Cleaning**

General: Remove protective coverings, replace damaged glass and leave the work clean, polished, free from defects, and in good condition.

**Operation and maintenance manual**

Requirement: Provide a manual that includes the following:

- Full product information for each partition system, including product designations, components list, colours and finishes, and accessories.
- Information on all glass, including type, thickness, and details of any colouration or treatment affecting the physical appearance of the installation.
- Information on all doors and hardware supplied as part of the partition system, including door type, size, finishes, and hardware details.
- Maintenance recommendations.
- Copies of type-tests and compliance certificates for fire, acoustic or other system performance requirements.

**Warranties**

Requirement: Warrant against defective materials and installation.

Warranty terms: [complete/delete]

Minimum period: [complete/delete]

**4 SELECTIONS****4.1 GLAZED PARTITION SCHEDULES****CSR HIMMEL glazed partition system schedule**

Property	GP1	GP2	GP3
Aluminium system			
Frame: Exposed member finish			
Frame: Exposed member colour			
Door - swing			
Door - slider			
Head			
Wall sill			
Skirting			
Glazing			
Safety markings			
Digitally printed film			
Weighted sound reduction index ( $R_w$ )			

**Internal window construction schedule**

Property	IW1	IW2	IW3
Window framing suite			
Frame: Exposed member finish			
Frame: Exposed member colour			
Head			
Glazing			
Safety markings			
Digitally printed film			
Weighted sound reduction index ( $R_w$ )			

**Glass schedule**

Property	A	B	C
Glass type			
Glass thickness (mm)			
Body tint colour			
Interlayer colour			

Property	A	B	C
Surface coating			
Surface coating: Colour			
Reflective coating: Colour			
Reflective coating: % reflectance			
Surface pattern			
Surface processing			
Surface processing: Pattern			
Surface processing: Colour			
Safety markings			
Digitally printed film			

**Special glasses schedule**

Type and properties	A	B	C
Mirrored			
Patterned/Textured			
Ceramic base painted glass: Base colour			
Ceramic base painted glass: Ceramic coating colour			
Ceramic-coated glass: Coating application method			
Acid etched			
Sandblasted			