

Building Product Information Sheet

Product name

ACMF Reynaers CS77-FP

Product Line

Reynaers Aluminium fire-rated windows and doors

Product description and its intended use

ACMF CS77-FP Aluminium fire-rated windows and doors are fully glazed systems designed to provide fire resistance in accordance with specified performance requirements. The system is available with fire ratings up to and including 60 minutes integrity and 60 minutes insulation, depending on configuration and glazing selection.

This product is based on Reynaers Aluminium CS77-FP thermally broken Aluminium profile technology. It is available in a wide range of configurations and sizes, including single- and double-door options and fixed windows. The system incorporates thermally broken Aluminium frames with cooling material, intumescent swelling gaskets, fire-resistant glazing, and Reynaers-approved hardware.

Doors can be supplied with a range of compatible, Reynaers-tested hardware, including hinges, locks, closers, and panic/escape devices as required. Window configurations are restricted to fixed glazed assemblies only; no opening elements are provided.

The CS77-FP system is suitable for use in internal and external applications where fire separation and/or protection is required, including commercial, residential, and public buildings.

For the full range of system configurations, performance data, and design options, refer to the [Reynaers Aluminium](#) technical documentation and [ACMF technical](#) downloads.

Product identifier

ACMF CS77-FP | EI30 and EI60 | Single Hinged Doors, Double Hinged Doors, Fixed Windows | Single Glazed and Double-Glazed Units

Place of manufacture

ACM Fabricators Limited fabricates in Aotearoa, New Zealand

Legal and trading name of the manufacturer

ACM FABRICATORS LIMITED

Legal and trading name of the importer

ACM FABRICATORS LIMITED

Address for service

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Relevant Building Code clauses

- B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. Products meet the requirements arising for loads from self-weight, wind and impact, i.e. B1.3.3 (a), (h) and (j)
- B2 DURABILITY: Performance B2.3.1 (b) 15 years, B2.3.1 (c) 5 years and B2.3.2
- C3 FIRE AFFECTING AREAS BEYOND THE SOURCE: Performance clause C3.6, C3.7 and C3.9
- C4 MOVEMENT TO A PLACE OF SAFETY: Performance Clauses C4.3 and C4.5
- D1 ACCESS ROUTES: Performance Clause D1.3.1 (b, c and f)
- E2 EXTERNAL MOISTURE: Performance E2.3.2. Window and door units conform and contribute to the wall cladding system meeting this requirement.
- F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1, F2.3.3 (a) and (b)
- H1 ENERGY EFFICIENCY: Performance H1.3.1 and H1.3.2E
- NZS 4211 / AS2047: Specification for performance of windows (incl. serviceability, deflection, operation of opening sashes, air infiltration, water penetration, ultimate strength, torsional strength of sashes)
- NZS 4223.3: Glazing in buildings - Human impact safety requirements
- Powder coat or paint systems meet Window & Glass Association NZ Powder Coating Quality Assurance System (PQAS)
- Powder coatings formulated to meet AS 3715 and AAMA 2605
- Anodized surface finishes meet Window & Glass Association NZ Voluntary Specification SFA 3503-03:2005, Specification for Anodic Oxide Coatings on Wrought Aluminium for External Architectural Applications.

Statement on how the building product is expected to contribute to compliance

B1 – Structure

The ACMF CS77-FP fire-rated doors and fixed window assemblies are designed, tested, and manufactured to maintain structural stability and integrity under normal use and imposed loads, including wind, handling, and glazing weight. When installed in accordance with ACMF and Reynaers approved instructions, the system contributes to compliance with NZBC Clause B1 by:

- Ensuring frames and doors remain stable and securely fixed within the building structure.
- Limiting deflection and movement of fixed windows and doors to within acceptable tolerances.
- Maintaining the integrity of fire-rated assemblies while supporting glazing and hardware.
- Performing reliably over the expected service life in combination with proper maintenance, thereby supporting the overall structural performance of the building.

B2 - Durability

The ACMF CS77-FP Aluminium fire-rated doors and fixed windows have been designed and manufactured to comply with the performance requirements of NZBC Clause B2: Durability if maintained in accordance with ACMF CS77-FP Operations and Maintenance manual.

- B2.3.1 (b) Non-accessible elements: ACMF CS77-FP Aluminium frames, fire-rated assemblies, and fixed glazing are designed to maintain their performance for a minimum of 15 years without major repair when installed and maintained according to ACMF and Reynaers approved methods.
- B2.3.1 (c) Accessible elements: Hardware, seals, gaskets, and other components that are readily accessible for inspection or replacement are designed to maintain their performance for a minimum of 5 years.
- B2.3.2 Commencement of durability period: Durability periods start from the date of practical completion and assume normal conditions of use, environmental exposure, and maintenance in accordance with the manufacturer's recommendations.

C3 – Fire Affecting Areas Beyond the Source

- C3.6: The ACMF CS77-FP fire-rated doors and fixed window assemblies have been tested to limit radiation heat flux to below 30 kW/m², in accordance with NZBC C/AS1 and relevant fire standards. This performance makes the system suitable for use in exterior walls, internal partitions, and exit routes, providing fire separation and protection for adjacent spaces, structures, and occupants under the tested EI30 and EI60 fire-resistance ratings.
- C3.7: The ACMF CS77-FP fire-rated doors and fixed window assemblies are manufactured from non-combustible Aluminium profiles and fire-rated components and are suitable for installation in both exterior and interior walls, including exit routes and partitions, providing effective fire separation and protection for adjacent spaces and occupants.
- C3.9: The ACMF CS77-FP fire-rated doors and fixed window assemblies form part of a tested and certified fire-rated system and are designed to control the spread of fire and smoke between fire compartments, maintaining performance in accordance with the specified EI30 and EI60 ratings when installed to [ACMF typical details](#).

C4 – Movement to a Place of Safety

- C4.3 and C4.5: The ACMF CS77-FP fire-rated doors are suitable for use within escape routes where required by the project design and fire strategy. Doors shall be [specified, detailed, and installed](#) in accordance with NZBC Acceptable Solutions C/AS2 Clause 3.15, including all relevant requirements for hardware, self-closing devices, clear opening dimensions, and direction of escape. Compliance is dependent on the use of tested and approved door configurations and hardware as part of the Reynaers Aluminium CS77-FP system.

The ACMF CS77-FP fire-rated doors and fixed window assemblies are [tested in accordance with AS 1530.4:2014](#) and comply with NZS 4520:2010, as required by NZBC Acceptable Solution C/AS2 Appendix C C6.1.1. The system meets the relevant specification requirements of NZBC C/AS2 Clause 4.16 for fire doors and access-controlled openings.

Fire-rated doors fitted with approved smoke seals comply with the definition of smoke control doors in accordance with NZBC C/AS2 Clause C6.1.2.

Fire-rated fixed window assemblies are [tested in accordance with AS 1530.4:2014](#) and comply with applicable glazing standards and system test evidence supporting the required fire-resistance rating.

Compliance is dependent on the product being manufactured, installed, and maintained in accordance with ACMF and Reynaers approved installation details, operation and maintenance requirements, and the use of compatible, tested, and compliant hardware as [specified for the CS77-FP system](#).

D1 – Access Routes

- D1.3.1(b, c, d): The ACMF CS77-FP fire-rated doors may be used as entry doors and within accessible routes, provided they are correctly specified, installed, and detailed in accordance with NZBC D1/AS1 Clause 7.0. Compliance requires that door hardware, including handles, swing direction, and clear opening widths, meets the accessibility and performance requirements of NZBC D1/AS1 Clause 7.0.5. Limitations may apply depending on configuration and project-specific requirements. Fixed window assemblies are not part of access routes.

E2 – External Moisture

- E2.3.2, E2.3.3: The ACMF CS77-FP fire-rated doors and fixed window assemblies have been tested for water ingress in accordance with AS 4420 (equivalent NZS 4284:2008 – Testing of Building Facades) and comply with the performance requirements of AS 2047:2014 (equivalent NZS 4211:2008 – Specification for Performance of Windows). [Fire-rated doors are suitable for](#) installation up to and including High Wind Zones as defined by NZS 3604:2011, while [fixed window assemblies are compliant](#) up to and including Extra High Wind Zones, when manufactured, installed, and maintained in accordance with ACMF and Reynaers approved instructions.

F2 – Hazardous Materials

- F2.3.1, F2.3.2, F2.3.3 : The ACMF CS77-FP fire-rated doors and fixed window assemblies do not give rise to any harmful concentrations of gas, liquid, radiation, or solid particles during construction or normal use. Glazing in fire doors and fixed window assemblies can be fitted with glazing manifestations to enhance visibility, with supply and installation by others. When correctly specified, vision panels, sidelights, and overlights comply with NZS 4223.3:2016 – Safety of Glass in Buildings.

Relevant Standards

AS 1530.4:2014 “Methods for fire tests on building materials, components and structures. Part 4: Fire-resistance tests for elements of construction”

NZS 4520:2010 “Fire-resistant doorsets”

NZS 4232.2:1988 “Performance criteria for fire resisting closures Part 2: Fire resistant glazing systems”

NZS 4223.3:2016 “Glazing in buildings Part 3: Human impact safety requirements” AS/NZS 4284:2008 “Testing of building facades”

NZ4211:2008 "Specification for performance of windows"

Limitations on the use of the building product

Limitations on fire ratings, size and other product options are as per [product datasheet](#).

Design requirements that would support the use of the building product

The ACMF CS77-FP fire-rated doors and fixed window assemblies are designed for interior and exterior applications in both residential and commercial buildings where a fully glazed, fire-rated door or fixed window assembly is required.

Installation Instructions

https://acmf.co.nz/wp-content/uploads/2025/09/ACMF_FRR_Typical-Details.-SEPT25.pdf

Maintenance Requirements

As per ACMF CS77-FP Operations and Maintenance manual

<https://acmf.co.nz/product/fire-rated-doors/>

This building product line is not subject to a warning or ban under section 26.