Thermally Broken for Exceptional Value

YOW 225 TU windows have been designed and engineered to provide the highest level of quality. The windows have an overall depth of 2-1/4” and are thermally broken by means of ThermaBond Plus® technology developed by YKK AP. YOW 225 TU windows may be installed as independent units or adapted to fit into most YKK AP storefront, window wall, or curtain wall systems. The vents are flush with the frame thus eliminating unsightly overlap. YOW 225 TU windows are available in a variety of configurations to accommodate project requirements.

Product Benefits

- Available configurations: Casement Outswing/Inswing, Project Out/In, & Fixed
- AAMA/WDMA/IES.2-97
  - AW-65 Operable
  - AW-100 Fixed
- 2-1/4” frame depth
- ThermaBond Plus® thermal break
- Accepts 1” glazing
- Factory glazing & screens
- Head/jamb receptors & stacking mullions
- Standard heavy-duty hardware
Thermally Broken Operable Window for Insulating Glass Specifications

1.01 SUMMARY

A. Section Includes: Operable and Fixed Aluminum Window Systems:
   1. YKK AP Series YOW 225 TU ThermaBond Plus® Operable and Fixed Aluminum Window System.

B. Related Sections:
   1. Glass and Glazing: Refer to Division 8 Glass and Glazing Section for glass and glazing requirements.

1.02 TEST AND PERFORMANCE REQUIREMENTS

A. All test unit sizes and configurations shall conform to the minimum sizes in accordance with AAMA/WDMA/CSA/I.S.A 440-05, with a performance class of AW, performance grade 65 (Operable), 100 (Fixed). Windows shall also comply with the following specific performance requirements indicated.

1. Air Infiltration: When tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa), completed window systems shall have maximum allowable infiltration of 0.10 CFM/FT² (1.83 m³/h·m²).

2. Water Infiltration: No uncontrolled water other than condensation on indoor face of any component when tested in accordance with ASTM E 331 and E547 at a minimum test pressure differential of 12 PSF (575 Pa).


4. Thermal Movement: Provide for thermal movement caused by 180 degrees F. (82.2 degrees C.) surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.

5. Thermal Performance: When tested in accordance with AAMA 1503 and NFRC 102:
   a. Condensation Resistance Factor (CRFf): A minimum of 57 (Fixed), 53 (Operable).
   b. Thermal Transmittance U Value: 0.39 (Fixed), 0.52 (Casement & Project) BTU/HR/FT²/°F or less.

6. Acoustical Performance: When tested in accordance with ASTM E 90 and ASTM E 1332, the Sound Transmission Class (STC) shall not be less than 33 for operable, 32 for fixed units.

7. Life Cycle Testing: When tested in accordance with AAMA 910, there shall be no damage to fasteners, hardware parts, or any other damage that would cause the specimen to be inoperable. Resistance to air leakage and water penetration resistance test results shall not exceed the gateway performance.

Note: Performance based on lab testing and will vary by configuration and glass type; contact YKK AP engineering for AAMA 507 Certificate of Compliance, to demonstrate compliance with NFRC for various glass types.

2.01 MANUFACTURERS

A. Acceptable Manufacturers: YKK AP America Inc.


2.02 MATERIALS

A. Extrusions: ASTM B 221 (ASTM B 221M), 6063-T5 Aluminum Alloy.

2.03 ACCESSORIES

A. Manufacturer’s Standard Accessories:
   1. Hardware: Standard concealed stainless steel 4 bar hinges for casement outswing and projected vents, exposed white bronze butt hinges for casement inswing vents, white bronze cam handles and strikes; Optional white bronze roto-operators for casement outswing vents, stainless steel support arms for casement inswing vents, aluminum/white bronze push bars for project out vents, white bronze custodial locks or multi-locks in lieu of cam handles, stainless steel limit stop device.
   2. Fasteners: All fasteners shall be AISI 300 series (except for self-drilling, which are to be series 400) stainless steel.
   3. Sealant: Non-skinning type, AAMA 803.3
   4. Glazing: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer; Glazing gaskets in accordance with ASTM C 864.

2.06 FINISHES

A. Anodic Coating: Electrolytic color coating followed by an organic seal applied in accordance with the requirements of AAMA 612.

B. High Performance Organic Coating Finish: Factory applied two-coat 70% Kynar resin by Arkema or 70% Hylar resin by Solay Solexis, fluoropolymer based coating system, Polyvinylidene Fluoride (PVF-2), applied in accordance with YKK AP procedures and meeting AAMA 2605 specifications.

For additional information on architectural aluminum products offered by YKK AP America Inc. visit our web site at www.ykkap.com.