WHY U.S. TEST STANDARDS MATTER

FOR FIRE-RATED GLAZING AND FRAMING IN THE MIDDLE EAST

Why should U.S. test standards matter to you for fire-rated glazing and framing?

- Increasingly, more U.S.-based architects are involved in the design and consultation of building code, particularly for Middle East projects
- Adoption and enforcement of stricter International Building Codes increases in Gulf Coast Countries (GCCs) resulting in many specifications for fire-rated systems needing to meet U.S. test standards

How are the EN (Euro-Norm) and BSI (British Standard) test standards <u>similar</u> to U.S. standards?

- Similar to the EN and BSI standards, the U.S. standards subject glazing systems to a **fire test** with furnace temperatures of over 954˚C. This tests:
  - The strength of the glass during a fire
  - Integrity of the system
  - Overall ability to work as a passive system during a fire (compartmentation)

How are the EN (Euro-Norm) and BSI (British Standard) test standards <u>similar</u> to U.S. standards?

- Similar to the EN and BSI standards, the U.S. standards also subject glazing systems to an **impact safety test**
  - Tests impact integrity of the glass to two different levels:
    - Category I-simulates the impact of a small child
    - Category II-simulates the impact of an adult

How are the EN and BSI test standards <u>different</u> than U.S. standards?

- U.S. standards also include the **hose stream test**

The Hose Stream Test Explained

- Directly after the fire exposure test, the glass and frame are exposed to high-pressure water flow from a fire hose which can reach up to 30 psi
- Higher fire resistance ratings mean the longer amount of time the system maintains its integrity during the high-pressure water exposure
- The test is performed to expose glass to thermal shock (extreme heat from the fire and then deluged cold water from the hose stream)
- In addition to testing for thermal shock, the hose stream test also **ensures the fire-rated materials maintain structural integrity in the event there is a fire**

Which Technical Glass Product systems meet U.S. test standards?

- With an international client base, TGP understands their products must be held to critically high standards so **all of our products meet the U.S. test standards**