5.4. Design, Installation, Inspection & Maintenance

5.4.1. Fire Resistant Glazing - Design / Specification

5.4.1.1. Fire resistant glazing systems shall be designed by a specialist manufacturer.

5.4.1.2. It is the consultant's responsibility to ensure that qualified glazing specialist is involved in the design, in full compliance with this code.

5.4.1.3. In addition to the fire strategy Approved by Civil Defence, the following points shall be addressed by the glazing installer to ensure they are consistent with the fire strategy and overall intent of the proposed glazing system:

a. The minimum fire rating specified relates to a full system of components. All elements of the fire barrier being created must collectively provide the performance required as part of a fire resistant assembly.

b. The final glazing system installed must be the same as the system that has been tested in accordance with the Civil Defence requirements. Project-specific differences should be discussed with the manufacturer and system certifier.

c. The system selected must be capable of performing in the environment in which it is intended to be installed, in particular internal or external environments.

d. The impact-resistance of the glazing has to be met as specified by the impact rating as per **Table 1.18.**

e. For unidirectional systems, the direction of the fire-side should be labeled and easily identifiable on the glass, profiles or accessories. Where the direction of fire is not known, only bi-directional fire-rated glazing components should be used.

f. Fire-rated glazing in inclined and horizontal applications shall be tested and approved separately to fire rated glazing in vertical applications. Vertically tested systems cannot be assumed to work in horizontal or inclined glazing applications.

g. The specified system should have a label with scope based on the type of fire represented during the fire test of the system (For example, a fire resistant system tested for domestic fires may not sustain conditions of industrial fires).

h. Considerations for the glazing system design shall include but not be limited to the overall screen size, fenestration layout within the screen, materials used in construction of the profile (such as the gauge, quality, thickness, finish, etc.) and the amount of edge cover and edge clearance.

i. Standard impact safety toughened or safety / security laminated glass is not necessarily fire-rated and the same cannot be used without it being tested and approved.