

POLYETHYLENE FILM FOR GREENHOUSE ENCLOSURES

PURPOSE

This variance is developed to allow the use of products specifically designed for commercial greenhouse facilities occupied only by greenhouse staff, where members of the public are not permitted access.

DISCUSSION

Flame-resistant fabrics conforming to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films" are designed to be used for tents and air-supported structures. Use of such materials for commercial greenhouses would be detrimental to plants due to the material's ability to block out the majority of the ultraviolet light necessary for plant growth.

For commercial greenhouse facilities, several types of polyethylene films with special additives for greenhouse use are available in the market but they do not meet the ULC criteria.

CODE REFERENCES

Article 3.1.6.5. states:

3.1.6.5. Flame Resistance

1) Every tent and *air-supported structure* and all tarpaulins and decorative materials used in connection with these structures shall conform to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films."

VARIANCE

This variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by the Safety Codes Act and the National Building Code-2019 Alberta Edition (NBC(AE)).

Polyethylene film, single or double skin, that does not conform to the requirements of CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films," may be used to enclose commercial greenhouse facilities which are required to be either of noncombustible construction or combustible construction, provided:

1. The greenhouse is used only for the growing of plants, (flowers, vegetables, shrubs, trees, etc.),
2. Members of the public do not have access to the greenhouse, and
3. The polyethylene film has a flame spread rating not exceeding 25.

For greenhouses used for other purposes, including facilities which include a sales area to serve customers, the enclosing materials used shall conform to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films," as per Article 3.1.6.5.

Unless stated otherwise, all Code references in this STANDATA are to Division B of the National Building Code-2019 Alberta Edition

Issue of this STANDATA is authorized by
the Provincial Building Administrator

[Original Signed]
Paul Chang

The logo for the province of Alberta, featuring the word "Alberta" in a stylized, cursive font with a small blue square at the end of the word.

This VARIANCE is applicable throughout the Province of Alberta.