



**CONDENSATION RESISTANCE  
LITERATURE REVIEW AND  
MANUFACTURER SURVEY**

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## **Executive Summary**

Improved condensation resistance is one of the non-energy benefits of high-performance windows. The CSA test for condensation resistance is now optional and consequently, for cost reasons, not used by many manufacturers, in spite of the fact that moisture problems occasionally result in call backs. This study reviews products that have been rated, includes measurements made as a result of other CANMET research, and summarizes comments from interviews with several manufacturers. Finally the latest VISION and FRAME programs are used to simulate the Temperature Index for a fixed window with various glazing and spacer options. Conclusions reflect the reality of the marketplace but also the benefits of high-performance windows in terms of condensation resistance.

## **Résumé**

Une résistance accrue de la condensation est l'un des bénéfices des fenêtres à haut rendement ne relevant pas de l'efficacité énergétique. La méthode de test de la norme de l'Association canadienne de normalisation (CSA) est actuellement optionnelle et, pour des raisons de coût, n'est pas utilisée par plusieurs manufacturiers en dépit du fait que les problèmes de condensation nécessite occasionnellement un rappel du manufacturier. Cette étude comprend une révision des produits déjà évalués, à laquelle se rajoutent les données recueillies lors d'autres projets de recherche de CANMET, et un sommaire des résultats d'entrevues avec divers manufacturiers. Une évaluation de la gamme d'indices de température d'une fenêtre fixe a aussi été menée par modélisation sur ordinateur, en utilisant les logiciels FRAME et VISION, en variant le type de vitrage et d'intercalaire. Les conclusions de cette étude permettent d'apprécier la réalité du marché de même que les avantages des fenêtres à haut rendement en ce qui concerne la résistance à la condensation.

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