

IS THERE A LOW TEMPERATURE LIMIT FOR CARFLEX[®]?

There is **NO** low temperature limit for Carflex !

Neither the National Electrical Code (NEC), Article 351-B nor UL-1660, Standard for Liquidtight Flexible Nonmetallic Conduit, contain any cold temperature restrictions on the use of Carflex. Section 351-23(a) of the NEC has a cautionary Fine Print Note which advises that nonmetallic materials become increasingly brittle as the temperature decreases.

The general response to questions relating to low temperature applications follows:

1. Carflex installed in a fixed fashion, not subject to any type of impact or crushing, should be satisfactory down to temperatures as low as -40 deg. F.
2. Carflex installed where there will be gradual, gentle movement, not subject to impact or crushing, should be satisfactory for temperatures as low as -20 deg. F.
3. Carflex installed where there will be sudden, abrupt movement, with some impact or crushing, will be satisfactory for temperatures as low as 20 deg. F.

Impact resistance is relative. It is dependent on the shape of the object which strikes the Carflex. Round is good, sharp or pointed is bad. The amount of force applied is also critical. Naturally, low forces are good, high forces are bad. The basic rule is covered in Section 351-23(b)(1) which prohibits installations of Carflex subject to physical damage. The Authority Having Jurisdiction (AHJ) makes this determination.

IS THERE A LOW TEMPERATURE LIMIT FOR CARFLEX[®]?

Movement is also relative. Where we indicate “gentle or gradual”, we understand these terms can be difficult to define. Similarly, “abrupt or sudden” are also difficult to define.

When a low temperature question is asked which doesn't seem to have a specific answer, it's best to suggest a trial installation so that the Carflex performance can be evaluated under actual conditions. Given the above explanation, most contractors will understand why it's not possible to give specific answers to cold temperature questions.

APRIL 20, 1998