

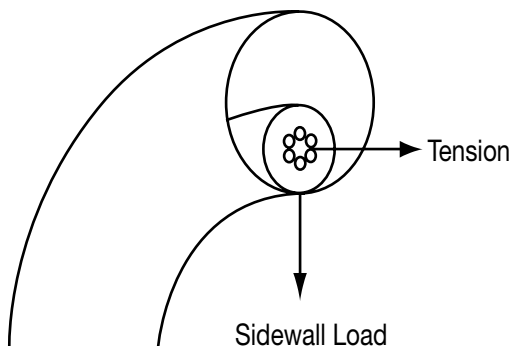
Installation—Maximum Sidewall Pressure

Overview

Sidewall bearing pressure (SWBP), or sidewall loading, is the radial force exerted on a cable being pulled around a conduit bend or sheave. Excessive SWBP can crush a cable and is, therefore, one of the most restrictive factors in installations having bends and requiring high pulling tensions. SWBP is reduced by increasing the radius of bends.

The maximum tension that can safely be applied to the cable during installation can be calculated using the maximum SWBP for the cable and the radius of the bend it is traversing.

For example, a cable having a maximum SWBP of 300 lb/ft that is being pulled around a bend having a radius of 2 feet should have no more than 300 lbs/ft x 2 ft or 600 lbs tension applied to it as the cable exits the bend.



CABLE TYPE	SWBP (LBS/FT)
300 V Nonshielded, 300 V and 600 V Shielded Control & Instrumentation	500
600 V Nonshielded Control & Instrumentation	500
600 V and 2400 V Nonshielded Power	1000
5 kV-35 kV Shielded Power	1000
Interlocked Armored Cable (all voltage)	300
CCW [®] MC-HL Armored Cable	500

General Cable’s Approval List of Cable Pulling Lubricants

The following manufacturers, who are listed in the 2006 UL Electrical Construction Equipment Directory, provide wire pulling compounds intended for use as lubricants in installing electrical conductors in raceways. These manufacturers have had some of their products evaluated by Underwriters Laboratories (UL) to determine their compatibility with conductor insulation and coverings.

Since it is not feasible to test every possible combination of cable material with every wire pulling compound, the installer should check with the pulling compound manufacturer or the cable manufacturer to determine compatibility between specific cable materials and the pulling compound.

The Listing Mark for these products includes the UL symbol, together with the word “LISTED,” a control number and the product name “Wire Pulling Compound.” Refer to the latest edition of the UL Electrical Construction Equipment Directory for the current listing of manufacturers of wire pulling compounds and their control numbers.

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|---------------------------------------|---|
| 3 M Company | J. C. Whitlam Mfg. Co. |
| American Bentonite International Inc. | Klein Tools Inc. |
| American Polywater Corp. | Madison Electric Products Inc. |
| Arnco Corp. | Rainbow Technology Corp. |
| Dura-Line Corp. | Rectorseal |
| Formulated Solutions LLC | Robinette Inc., DBA Electro Compounds Co. |
| Compound Co. | Thomas & Betts Corp. |
| Greenlee Textron | |
| Ideal Industries Inc.* | |

*Yellow 77 not recommended for use with UniShield[®] cables.

For LSZH jacketed cable, consult with pulling compound manufacturers.

Other wire pulling compounds may be suitable for use with General Cable constructions. Contact the wire pulling compound manufacturer regarding the suitability of their products with specific General Cable products.