

CRACK INJECTION & CONCRETE REPAIR



ASTM PRODUCT QUICK REFERENCE GUIDE (American Society for Testing Materials)

Standard C881 reflects a description of construction epoxies
 Type = Use, Grade = Viscosity, Class = Use temperature range

PRODUCT	TYPE	GRADE	CLASS
LR-321 Injection Resin	I, II, IV & V	1	C
LR-321G Injection Gel	I & II	2	C
SLV-302 Low Viscosity Resin	I, II, IV & V	1	A, B, C
CG-300	I, II, IV & V	3	A, B, C
CP-1400	I & II	3	B, C

TYPE	DESCRIPTION	USE
I	Non-load bearing	For bonding hardened concrete to hardened concrete
II	Non-load bearing	For bonding new concrete to hardened concrete
IV	Load bearing	For bonding hardened concrete to hardened concrete
V	Load bearing	For bonding new concrete to hardened concrete

Grade Codes — 1 = Low Viscosity (0-2,000 cps) 2 = Medium Viscosity (2,000-10,000 cps) 3 = Non Sag

Class Codes — A = below 40°F B = between 40-60°F C = above 60°F

*C881 testing in progress. Call for latest information

GLUE-LAM BEAM REPAIRS

Adhesives Technology Corp.'s **CRACKBOND** products **CG-300**, **CP-1400**, **LR-321**, and **LR-321G Gel** are recommended for use in the crack-injection repair of glue-lam beams. These epoxy products are typically used in the repair of concrete cracks, among other uses. Because structural epoxy has excellent adhesion to wood and superior physical properties, epoxies are capable of restoring the beam to its pre-crack strength. If properly installed, any new failure of the beam will typically occur in wood to wood cohesion, not within the epoxy.

The following are guidelines only. For proper in depth injection details, please refer to the *Crack-Injection Procedures* technical data sheet.

The proper injection procedures for the injection of cracks in wood is the same as that for concrete. The crack should be cleaned if possible (with clean air or water). The exposed crack faces should be cleaned and capped with **CG-300** epoxy paste while at the same time injection ports must be set in the cap (about every 8 inches for most applications). After the cap has reached adequate strength to resist the injection back-pressure, the injection epoxy is dispensed in a port by port fashion until the void is filled. Unless a particular port leads to a "blind" section of the crack, injection materials will surface at the adjacent ports, indicating penetration. The filled port is plugged and the adjacent port is injected.

The epoxy product selected for injection is matched to the crack width. Wide cracks 0.125" or wider are generally filled with **CG-300** or **CP-1400** gel or paste, whereas fine cracks are injected with the low viscosity resin **LR-321**. The product **LR-321G Gel** is a medium viscosity injection material and is used in medium sized cracks. The pattern of injection may follow one of two procedures (low port to high port) or (region of widest crack exposure toward finer sections). The injection material should be given adequate time to cure before loading, per specific data sheet information. Appropriate job-site Quality Control techniques may sometimes include coring a section of material spanning the crack, or less invasive, obtaining periodic samples of the material being dispensed to show goodness of cure.

If we may assist further in clarifying an appropriate procedure for crack injection in wood, please contact us at **800-892-1880**.

ACCESSORIES FOR ALL CRACKBOND PRODUCTS

DISPENSING TOOLS		UM	PKG QTY
TM16HD	HEAVY DUTY MANUAL TOOL FOR 16 OZ CARTRIDGES	EA	1
TA16HD-C	HEAVY DUTY PNEUMATIC TOOL FOR 16 OZ CARTRIDGES	EA	1
MIXING NOZZLES AND ACCESSORIES		UM	PKG QTY
T3438	MIXING NOZZLE 3/4 X 3/8 FOR CG-300	EA	1
T5814	MIXING NOZZLE 5/8 X 1/4 FOR LR-321G*	EA	1
MN	MIXER NUT FOR ALL SYSTEMS	EA	1
T38XLK	3/8 MIXER KIT W/NUT & FLOW CONTROL (3 EACH)	Kit	3
T38XLKB	3/8 MIXER FOR LR-321 & SLV-302 w/nuts and flow controls	Bulk	25
IJ-220	COMBO SURFACE/DRILL INJECTION PORT	EA	1
CBSP	SURFACE INJECTION PORT	EA	1
CBDP	DRILLED-IN INJECTION PORT CRIMPED (DRILL 1/2")	EA	1
INJ-KS-16	1/4" INJ. KIT FOR LR-321-16 with 3' extension tubing	EA	1
CBFC	CRACKBOND PART FLOW CONTROL	EA	1



Various Ports and Flow Control
 Left to right:
 IJ-220, CBSP, CBDP, CBFC

* Requires Mixing Nut (MN). Purchase separately.