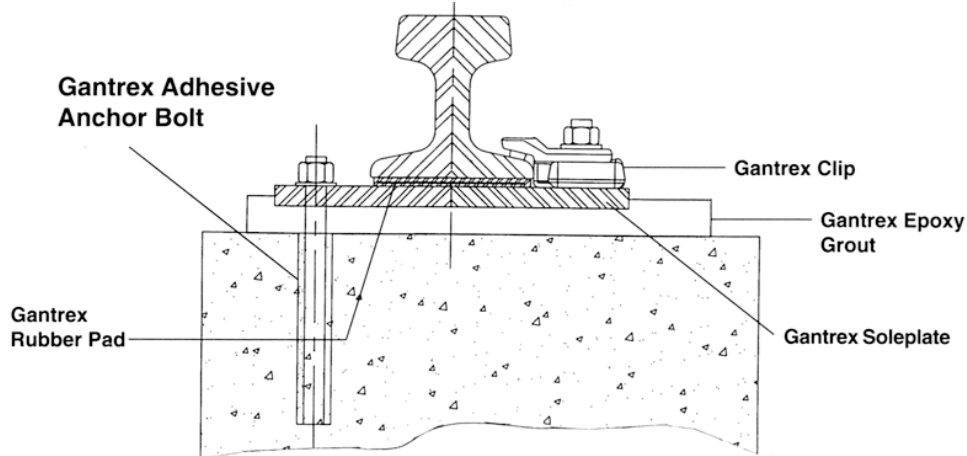




A Member of the GANTRY GROUP

Adhesive Anchor Bolts

For Crane Rail on Concrete Applications



INTRODUCTION

The Gantrex Anchor Bolt Assembly is used to mount rail soleplates and other equipment with a polyester-based resin & catalyst compound. It is installed by drilling a hole in the concrete deck, mixing the resin and filling the hole. The mixed resin performs as an adhesive, suspending the bolt in place until it cures to complete the process. Unlike anchors using epoxy-based resin, Gantrex anchors can be placed in temperatures as low as 10°F.

The bolt itself is an all-thread steel rod, complete with a nut and a washer. Bolts can be supplied in different diameters and lengths. The polyester-based resin is supplied either in quart cans, which can be mixed and poured directly from the container, into the hole, or in convenient high-capacity cartridges, mixed and injected with a gun.

*NOTE: Epoxy-based anchors are also available. Please consult Gantrex.

MATERIALS

Anchor Bolt

Material: Steel Rod A36: Fy (min) = 36,000 psi Ft (min) = 58,000 psi
 B7: Fy (min) = 105,000 psi Ft (min) = 125,000 psi
Finish: Zinc plated or hot dipped galvanized.
Freight classification: Class 50

Polyester-based resin

Packaging: Liquid Supplied in quart cans, (6) cans per carton or (12) high-capacity cartridges with catalyst.
Freight classification: Resin Solution, Class 3, UN 1866, Packing Gp. III.

Catalyst (Hardener)

Packaging: Powder Supplied in bottle type containers, (6) per carton (or included with above cartridges).
Freight classification: Organic Peroxide, Type D solid (Dibenzoyl Peroxide, 50%) 5.2, UN 3106, Packing Gp. II.

PLACEMENT PROCEDURE

Holes are air-drilled in concrete deck, using a soleplate as template. The drilled holes are 1/8" greater in diameter, than the anchor bolt diameter. These holes are then cleaned to remove dust and debris.

One container of catalyst is added to one can of polyester resin and mixed in the can for 60 to 90 seconds, or injected directly via cartridge. The mixture is poured or injected into the hole, to about one third the depth. The anchor bolt is then suspended from the soleplate, and placed in the resin in the hole. Rotate the anchor bolt within the hole so that all threads are completely covered with adhesive. The resin cures and sets firm in about one hour. The anchors must not be disturbed during this time. Full cure occurs at around 24 hours.

SUGGESTED EMBEDMENT

It is important that anchor bolts are embedded to a proper depth to achieve adequate strength. In 5 ksi concrete, for example, we suggest that A36 anchor bolts be embedded to at least 8 times their diameter (a 3/4" rod will require an embedded length of at least 6"). This is adequate to achieve a strong enough bond with the concrete such that, in a pullout test, the anchor bolt will yield before the bond with the concrete. Similarly, the suggested embedment for B7 bolts is 12 times the bolt diameter.

ADHESIVE ANCHOR BOLTS

TECHNICAL INFORMATION = POLYESTER-BASED (For epoxy-based resin, consult Gantrex for assistance.)

Anchor Bolt Data Table

Gantrex Anchor Bolt Part Number <i>Notes (1, 2)</i>	Bolt Diameter (inches)	Hole Diameter (inches)	Bolt Length (inches)	Embed. Length (inches)	Rod Assy. Wt. (LB) A36 <i>Note (3)</i>	Rod Assy. Wt. (LB) B7 <i>Note (3)</i>	Resin Vol./Bolt (cu. inch) <i>Note (4)</i>	# Bolts / Can or Cartridge	# Bolts Per carton (cans)	# Bolts Per carton (cartridges)
AB 5/8 x 10-A36*	5/8	3/4	10	6	0.86	0.91	1.62	33	198	396
AB 5/8 x 12-A36*			12	8	1.01	1.05	2.16	25	150	300
AB 5/8 x 14-A36*			14	10	1.16	1.20	2.70	20	120	240
AB 3/4 x 10-A36*	3/4	7/8	10	6	1.16	1.24	1.91	28	168	336
AB 3/4 x 12-A36*			12	8	1.36	1.43	2.54	21	126	252
AB 3/4 x 14-A36*			14	10	1.56	1.63	3.18	17	102	204
AB 3/4 x 16-A36*			16	12	1.76	1.83	3.82	14	84	168
AB 7/8 x 12-A36*	7/8	1	12	8	1.92	2.03	2.94	18	108	216
AB 7/8 x 14-A36*			14	10	2.20	2.31	3.68	14	84	168
AB 7/8 x 16-A36*			16	12	2.48	2.59	4.42	12	72	144
AB 7/8 x 18-A36*			18	14	2.76	2.86	5.15	10	60	120
AB 1 x 12-A36*	1	1 1/8	12	8	2.54	2.68	3.34	16	90	180
AB 1 x 14-A36*			14	10	2.90	3.04	4.18	12	72	144
AB 1 x 16-A36*			16	12	3.26	3.40	5.02	10	60	120
AB 1 x 18-A36*			18	14	3.62	3.76	5.85	9	54	108
AB 1 1/4 x 14-A36*	1 1/4	1 3/8	14	10	4.73	4.97	5.14	10	60	120
AB 1 1/4 x 16-A36*			16	12	5.30	5.55	6.17	8	48	96
AB 1 1/4 x 18-A36*			18	14	5.88	6.12	7.20	7	42	84
AB 1 1/4 x 20-A36*			20	16	6.46	6.70	8.22	6	36	72

NOTES:

- 1) Replace 'A-36' with 'B7' for high strength material.
- 2) Suffix with 'Z' for Zinc plated or 'G' for hot dipped galvanized.
- 3) Rod assembly consists of one rod + 1 nut + 1 washer.
- 4) Resin volume shown includes 50% for waste.

HOW TO SPECIFY AND ORDER

1. To specify and order a Gantrex adhesive anchor bolt assembly, first determine the correct diameter and length, based on the application requirements.
2. Determine correct part number from the above table and notes. For example, AB 1x14-A36G would be the part number for a 1" x 14" long, diameter bolt of A36 material, with one nut and one washer, all hot dipped galvanized.
3. If substrate temperature is likely to be below 45°F (7°C), at time of actual installation, please double the quantity of catalyst, at time of order placement. Also indicate if liquid cans or cartridges are preferred.

While the steel hardware can be shipped at any time, due to the sensitivity of the resin/catalyst system, it is recommended that the adhesive be shipped 3-4 weeks prior to actual installation. This time allows for the temperature of the adhesive to stabilize prior to installation.

For Installation Assistance, please contact Gantrex Crane Rail Installations at 1-800-242-6873.

GANTREX reserves the right to discontinue or change specifications at any time without prior notice and without incurring any obligation whatsoever. MSDS sheets available upon request.



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