# Carlon® Cement

(MSDS sheets available at www.carlon.com )

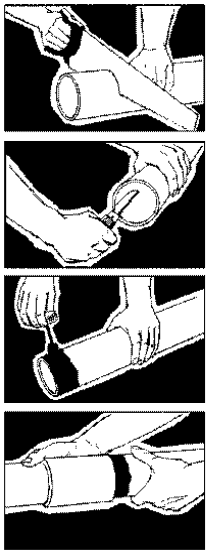
| | Recommended pipe application and sizes | Set-up time (Evaporation Rate) | Recommended installation temperature | Lap Shear @ 73˚F | Viscosity at 75˚ as manufactured |
|---|---|---|---|---|---|
|  | **Medium Bodied Clear PVC Solvent Cement with dauber**<br>Part No. VC9964, Size 1/2 Pint, Std. Ctn. Qty. 10<br>Part No. VC9963, Size Pint, Std. Ctn. Qty. 24<br>Part No. VC9962, Size Quart, Std. Ctn. Qty. 12<br>Part No. VC9961P, Size Gallon, Std. Ctn. Qty. 6 | Recommended for all grades and types of Carlon PVC conduit, duct, wireway and fittings, except Flex-Plus® Blue™ ENT (Electrical Nonmetallic Tubing.)<br>Up through 6" diameter. | 10˚-30˚F Not recommended<br>30˚-50˚F 5-6 minutes<br>50˚-70˚F 3-4 minutes<br>70˚-90˚F 1-2 minutes | 40˚ to 100˚F | 2 hrs. 350 psi<br>16 hrs. 800 psi<br>72 hrs. 1,500 psi | 500-900 cps |
|  | **Medium Bodied Gray PVC Solvent Cement with dauber***<br>Part No. VC9924-24, Size 1/2 Pint, Std. Ctn. Qty. 24<br>Part No. VC9923, Size Pint, Std. Ctn. Qty. 24<br>Part No. VC9922, Size Quart, Std. Ctn. Qty. 12<br>Part No. VC9941P, Size Gallon, Std. Ctn. Qty. 6 | Recommended for all grades and types of Carlon PVC conduit, duct, wireway and fittings, except Flex-Plus® Blue™ ENT (Electrical Nonmetallic Tubing.)<br>Up through 6" diameter. | 10˚-30˚F Not recommended<br>30˚-50˚F 5-6 minutes<br>50˚-70˚F 3-4 minutes<br>70˚-90˚F 1-2 minutes | 40˚ to 100˚F | 2 hrs. 350 psi<br>16 hrs. 800 psi<br>72 hrs. 1,500 psi | 500-900 cps |
|  | **All-Weather "Quick-Set" Clear Solvent Cement with dauber***<br>Part No. VC9984, Size 1/2 Pint, Std. Ctn. Qty. 10<br>Part No. VC9983, Size Pint, Std. Ctn. Qty. 24<br>Part No. VC9982, Size Quart, Std. Ctn. Qty. 12<br>Part No. VC9981P, Size Gallon, Std. Ctn. Qty. 6 | Recommended for all grades and types of Carlon PVC conduit, duct, wireway and fittings, except Flex-Plus® Blue™ ENT (Electrical Nonmetallic Tubing.)<br>Up through 6" diameter. | 10˚-30˚F 4-5 minutes<br>30˚-50˚F 3-4 minutes<br>50˚-70˚F 1-2 minutes<br>70˚-90˚F 1/2-1 1/2 minutes | -5˚ to 100˚F | 2 hrs. 350 psi<br>16 hrs. 800 psi<br>72 hrs. 1,500 psi | 400-700 cps |
|  | **All-Weather ENT Blue "Quick-Set" Solvent Cement with brush***<br>Part No. VC9992, Size Quart, Std. Ctn. Qty. 12 | Required for use with Flex-Plus® Blue™ ENT (Electrical Nonmetallic Tubing), Riser-Gard®, P&C Flex®, and Carlon PVC fittings.<br>Up through 4" diameter. | 10˚-30˚F 4-5 minutes<br>30˚-50˚F 3-4 minutes<br>50˚-70˚F 1-2 minutes<br>70˚-90˚F 1/2-1 1/2 minutes | 4˚ to 100˚F | 2 hrs. 350 psi<br>16 hrs. 800 psi<br>72 hrs. 1,500 psi | 400-700 cps |
|  | **Low VOC Gray PVC Solvent Cement with dauber***<br>Part No. VC9LV4, Size 1/2 Pint, Std. Ctn. Qty. 10<br>Part No. VC9LV3, Size Pint, Std. Ctn. Qty. 24<br>Part No. VC9LV2, Size Quart, Std. Ctn. Qty. 12 | Recommended for all grades and types of Carlon PVC conduit, duct, wireway and fittings, except Flex-Plus® Blue™ ENT (Electrical Nonmetallic Tubing.)<br>Up through 6" diameter.<br>VOC emission of 490 grams/liter per the Bay and South Coast test method. | 10˚-30˚F Not recommended<br>30˚-50˚F 5-6 minutes<br>50˚-70˚F 3-4 minutes<br>70˚-90˚F 1-2 minutes | 40˚ to 100˚F | 2 hrs. 350 psi<br>16 hrs. 800 psi<br>72 hrs. 1,500 psi | 500-900 cps |
|  | **Clear Primer with dauber**<br>Part No. VC9903, Size Pint, Std. Ctn. Qty. 24<br>Part No. VC9902, Size Quart, Std. Ctn. Qty. 12<br>Purple:<br>Part No. VC9932, Size Quart, Std. Ctn. Qty. 12 | Recommended for use with Carlon cement and all types and sizes of Carlon WireSafe® wireway. | N/A | 5˚ to 100˚F | N/A | N/A |

*Meets ASTM D2564
*No daubers for gallon cans



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# Cement Joints



Carlon nonmetallic products are joined by means of solvent cement joints. Sizes 1/2" through 1 1/2" should be cut square (using a fine tooth handsaw) and deburred. For sizes 2" through 6" a miter box or similar saw guide should be utilized to keep the material steady. After cutting and deburring, wipe ends clean of dust, dirt and shavings.

Joining process as follows: Be sure that conduit end is clean and dry. Apply coat of Carlon Solvent Cement (use dauber) to end of conduit, the length of the socket to be attached. Push conduit firmly into fitting while rotating conduit slightly about one-quarter turn to spread cement evenly. Allow joint to set approximately 10 minutes.

Carlon recommends the use of Carlon cement for proper solvent cement joints. Since this cement is prepared particularly for our product compounds and tolerances, we cannot guarantee joints assembled with cement materials supplied by other manufacturers. Regular grade grey solvent cement will accommodate most application situations being of a general purpose nature. In situations requiring an extremely fast-setting joint, (low temperature or difficult installation conditions) Carlon All Weather Quick-Set Cement is recommended. Standard grade clear cement is recommended for noncritical utility applications where gap filling and leak testing are not required.

## Average number of joints per can

| Pipe size | 1/2 Pint | Pint | Quart | Gallon |
|---|---|---|---|---|
| 1/2 | 140 | 275 | 550 | 2,200 |
| 3/4 | 90 | 180 | 360 | 1,440 |
| 1 | 70 | 140 | 280 | 1,120 |
| 1 1/4 | 50 | 100 | 200 | 800 |
| 1 1/2 | 37 | 75 | 150 | 600 |
| 2 | 20 | 40 | 80 | 320 |
| 2 1/2 | 17 | 35 | 70 | 280 |
| 3 | 15 | 30 | 60 | 240 |
| 3 1/2 | 13 | 27 | 54 | 216 |
| 4 | 12 | 25 | 50 | 200 |
| 5 | 9 | 19 | 38 | 150 |
| 6 | 6 | 12 | 24 | 95 |

Average shelf-life of all Carlon cement is 24 months (unopened cans stored below 80°F.)

All Carlon cements are specially formulated to be used with Carlon PVC products, and do not require primers when parts are clean of dirt and moisture.





## Cementing PVC Conduit:

1. Make square saw cut with fine tooth saw.
2. Deburr and round inside edge of the cut end.
3. Clean socket ID and spigot OD of dirt and moisture.
4. Apply a uniform coat of cement to spigot end and push onto socket bottom, rotating 1/4 turn.
5. Allow time to set before disturbing. This will depend upon temperature.

## Cementing PVC Conduit for Submerged Areas Requiring Air or Water Tightness:

1. Follow the procedure to the left for cementing conduit.
2. Test workmanship by conducting a low pressure air (3.0 - 5.0 psi) test after system is installed and cemented joints are set.
3. Plug and block ends to prevent movement prior to pressurization.
4. Check for leaks with soap solution.
5. Even low pressure air can cause high thrust loads and caution must be observed.

## Cementing ENT for Concrete-Tight Applications:

1. Use Carlon Socket tight fittings or couplings.
2. ***Do not*** use chemical primer or cleaner.
3. Apply a light uniform coat of cement, labeled for use with ENT.
4. ***A brush*** shall be used to apply the cement.
5. Brush excess cement out of ENT grooves
6. Promptly insert ENT into fitting while cement is wet, until the fitting stop is reached, and give 1/4 turn.
7. Do not disturb until the joint is set.