

RECOMMENDED JOINT CURING CHART

TEMPERATURE RANGE DURING CURE PERIOD	TEST PRESSURES FOR TUBE SIZES 1/2" TO 1 1/4"		TEST PRESSURES FOR TUBE SIZES 1 1/2" TO 3"		TEST PRESSURES FOR TUBE SIZES 4" TO 8"		TEST PRESSURES FOR TUBE SIZES 10" TO 16"
	UP TO 180 PSI	ABOVE 180 TO 370 PSI	UP TO 180 PSI	ABOVE 180 TO 315 PSI	UP TO 180 PSI	ABOVE 180 TO 315 PSI	UP TO 100 PSI
60°F-100°F	1 HR	6 HR	2 HR	12 HR	6 HR	24 HR	24 HR
40°F-60°F	2 HR	12 HR	4 HR	24 HR	12 HR	48 HR	48 HR
40°F	8 HR	48 HR	16 HR	96 HR	48 HR	8 DAYS	8 DAYS

Helpful Hints

1. Work quickly and carefully.
2. Use liberal amounts of fresh cement.
3. Do not attempt cementing in the rain or in the presence of moisture.
4. Do not cement when the temperature is below 40°F or above 100°F.
5. Do not take shortcuts or bypass recommended steps.
6. Do not weld steel tubing that has been connected to freshly cemented PVC or CPVC tube.
7. Keep primers and cements away from heat, sparks, and flame.
8. Provide good ventilation to reduce fire hazard and to minimize inhalation of solvent vapors.
9. Do not test with compressed air or gas, and bleed all entrapped air from the system before testing hydrostatically.
10. Consult your HYDROSEAL representative for specific questions or problems.

AVERAGE NUMBER OF JOINTS PER QUART OF CEMENT																
TUBE DIAMETER	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	
NUMBER OF JOINTS	300	200	125	120	90	60	45	40	30	10	5	2-3	1-2	3/4	1/2	

APPLICABLE SPECIFICATIONS FOR SOLVENT WELDING	
ASTM D-2564	Solvent cements for PVC plastic pipe and fittings.
ASTM D-2855	Making solvent-cemented joints with PVC pipe and fittings.
ASTM F-493	Solvent cements for CPVC plastic pipe and fittings.
ASTM F-656	Primers for use in solvent cement joints of PVC plastic pipe and fittings.

Hydrostatic Pressure Testing

1. The last assembled joint should be fully cured before filling the system with water.
2. All valves and air relief mechanisms should be opened at the ends and elevations. The system should be filled slowly, flow velocities should not exceed 1 foot per second ([Velocity-GPM charts pages 7.08 ~ 7.11](#)). This will prevent surge, water hammer, and air entrapment.
3. Water flow should continue until all entrapped air is completely flushed out of every branch of the system. Maintain the 1 ft/s velocity until every valve is checked. A rapidly fluctuating gauge needle during pressure rise may be an indication that entrapped air still remains in the system.
4. After filling the system, do not pressurize until the responsible engineer is present to witness the test. All personnel in the vicinity of the system should wear safety glasses and hard hats. High voltage electrical equipment should be shielded from a possible spray.
5. The tubing system should be pressurized to 125% of its maximum design operating pressure. This pressure must not exceed the working pressure of the lowest rated component in the system, i.e. flanges, unions, thread parts, valves, etc.
6. The pressure test should not exceed 1 hour. This should provide enough time to inspect all joints for leaks. If leaks are found, pressure must be relieved and the leak repaired. The system should then be recharged and retested. Consult your Hydroseal representative if you have any questions concerning these steps.

DO NOT USE AIR OR INERT GAS TO TEST, THIS INCLUDES AIR-OVER-WATER BOOSTERS.

Systems should include the appropriate air relief and vacuum breaker valves to vent air during normal operation after installation. Entrapped air is major cause of surge and burst failure in plastic tubing systems.