



PVC-U SCHEDULE 40 & 80 PIPES

a **LESSO** company

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LEAD-FREE

PIPE SYSTEMS

Suitable for Water, Chemical Processing, Waste
water treatment and other industrial applications

LESSO



Schedule 40 & 80 Pipes

Standards & Quality

- Sch. 40 & 80 pipes is manufactured to comply with NSF Standard 61, CSA B 137.3 and ASTM D1785, consistently meeting the Quality Assurance test requirements of the standard with regards to burst pressure, flattening and extrusion quality.



Applications

- Sch. 40 & 80 pipes is resistant to most acids, alkalis, salts, fats, oxidants and halogens. However, those pipe should not be used with ester, ketones, ethers and aromatic or chlorinated hydrocarbons.
- Typical applications include:
 - chemical processing
 - agricultural
 - potable water
 - treated and untreated effluent
 - cooling water
 - irrigation

Temperature Consideration

- Being a thermoplastic material, Sch. 40 & 80 pipes will display variations in its physical properties as the temperature changes. As the temperature falls, the pipe's stiffness and tensile strength increase, thereby increasing the pipe's pressure capacity. Conversely, as the operating temperature rises, the pipe decreases in stiffness and tensile strength; consequently, the pressure capacity of the pipe will be reduced. With the drop in temperature, the pipes decreases in impact strength and becomes less ductile. As the temperature rises, the impact strength and flexibility of the pipe increase.

❖ Thermal Linear Expansion

Sch. 40 & 80 pipes expands and contracts with change in temperature. The coefficient of thermal expansion is 7×10^{-5} mm/mm/°C. This is equivalent to 7mm change in length for every 10 meters for every 10°C change in temperature.

❖ Pressure De-rating Factor

The pressure ratings given are for operating temperature of water at 73°F (23°C). For operating temperature above 73°F (23°C), the working pressure has to be de-rated by multiplying the working pressure of the selected pipe at 73°F (23°C), by the appropriate de-rating factor to determine the maximum permissible working pressure of the pipes at the elevated temperature chosen. Nevertheless, the pipes should not be used at temperature in excess of 140°F (60°C).

OPERATING F°	TEMP C°	DE-RATING FACTOR
73	23	1.00
80	26	0.88
90	32	0.76
100	38	0.64
110	43	0.54
120	49	0.42
130	54	0.32
140	60	0.20

Schedule 40 Pipes (Plain Ended)

Pipes Dimensions & Working Pressures

PRODUCT CODE	NOMINAL DIAMETER		PIPE LENGTH L (M)	OUTSIDE DIAMETER		WALL THICKNESS		MAX WORKING PRESS	
	(in)	(mm)		(in)	(mm)	(in)	(mm)	(psi)	(MPa)
8010013371	½	15	5.8	0.836 - 0.844	21.2 - 21.4	0.110 - 0.130	2.8 - 3.3	600	4.14
Upon request	¾	20	5.8	1.046 - 1.054	26.6 - 26.8	0.114 - 0.134	2.9 - 3.4	480	3.31
8010013372	1	25	5.8	1.310 - 1.320	33.3 - 33.5	0.134 - 0.154	3.4 - 3.9	450	3.10
Upon request	1¼	32	5.8	1.655 - 1.665	42.0 - 42.3	0.142 - 0.161	3.6 - 4.1	370	2.55
8010013373	1½	40	5.8	1.894 - 1.906	48.1 - 48.4	0.146 - 0.165	3.7 - 4.2	330	2.28
8010013374	2	50	5.8	2.369 - 2.381	60.2 - 60.5	0.154 - 0.173	3.9 - 4.4	280	1.93
Upon request	2½	65	5.8	2.868 - 2.882	72.8 - 73.2	0.205 - 0.228	5.2 - 5.8	300	2.07
8010013375	3	80	5.8	3.492 - 3.508	88.7 - 89.1	0.217 - 0.244	5.5 - 6.2	260	1.79
8010013376	4	100	5.8	4.491 - 4.509	114.1 - 114.5	0.236 - 0.264	6.0 - 6.7	220	1.52
Upon request	6	155	5.8	6.614 - 6.636	168.0 - 168.6	0.280 - 0.315	7.1 - 8.0	180	1.24
Upon request	8	200	5.8	8.610 - 8.640	218.7 - 219.5	0.323 - 0.362	8.2 - 9.2	160	1.10
Upon request	10	250	5.8	10.735 - 10.765	272.7 - 273.4	0.366 - 0.409	9.3 - 10.4	0.97	1.40
Upon request	12	300	5.8	12.735 - 12.765	323.5 - 324.2	0.406 - 0.457	10.3 - 11.6	130	0.90

Schedule 80 Pipes (Plain Ended)

Pipes Dimensions & Working Pressures

PRODUCT CODE	NOMINAL DIAMETER		PIPE LENGTH L (M)	OUTSIDE DIAMETER		WALL THICKNESS		MAX WORKING PRESS	
	(in)	(mm)		(in)	(mm)	(in)	(mm)	(psi)	(MPa)
8010013106	½	15	5.8	0.836 - 0.844	21.2 - 21.4	0.147 - 0.167	3.7 - 4.2	850	5.86
8010013113	¾	20	5.8	1.046 - 1.054	26.6 - 26.8	0.154 - 0.17	3.9 - 4.4	690	4.76
8010013085	1	25	5.8	1.310 - 1.320	33.3 - 33.5	0.179 - 0.200	4.6 - 5.1	630	4.34
8010013122	1¼	32	5.8	1.655 - 1.665	42.0 - 42.3	0.191 - 0.214	4.9 - 5.4	520	3.59
8010013121	1½	40	5.8	1.894 - 1.906	48.1 - 48.4	0.200 - 0.224	5.1 - 5.7	470	3.24
8010013089	2	50	5.8	2.369 - 2.381	60.2 - 60.5	0.218 - 0.244	5.5 - 6.2	400	2.76
8010013128	2½	65	5.8	2.868 - 2.882	72.8 - 73.2	0.276 - 0.309	7.0 - 7.8	420	2.90
8010013092	3	80	5.8	3.492 - 3.508	88.7 - 89.1	0.300 - 0.336	7.6 - 8.5	370	2.55
8010013093	4	100	5.8	4.491 - 4.509	114.1 - 114.5	0.337 - 0.377	8.6 - 9.6	320	2.21
8010013096	6	155	5.8	6.614 - 6.636	168.0 - 168.6	0.432 - 0.484	11.0 - 12.3	280	1.93
8010013097	8	200	5.8	8.610 - 8.640	218.7 - 219.5	0.500 - 0.560	12.7 - 14.2	250	1.72
8010013098	10	250	5.8	10.735 - 10.765	272.7 - 273.4	0.593 - 0.664	15.1 - 16.9	230	1.59
8010013100	12	300	5.8	12.735 - 12.765	323.5 - 324.2	0.687 - 0.769	17.5 - 19.5	230	1.59

Chemical resistance:

The pipes have excellent chemical resistance which allows the transportation of many acids, alkalis and chemical concentrates without fear of corrosion and environmental pollution.

Abrasion resistance:

The pipes offer good resistance to abrasion and erosion from aggressive slurries, which can rapidly damage steel or other traditional pipe materials.

Smooth bore:

The exceptionally smooth bore results in low friction head losses and also inhibits the formation of scale, with consequent savings in pump energy consumption and reduced pressure drops.

Light weight:

At 5 times lighter than steel pipe, Sch. 40 and 80 pipes are much easier to handle, especially during installation at site.

Easy to join:

Solvent welding gives fast and trouble free installation and allows simple modifications to existing systems.



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TRUSTED PIPEWORK FOR LIFE

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