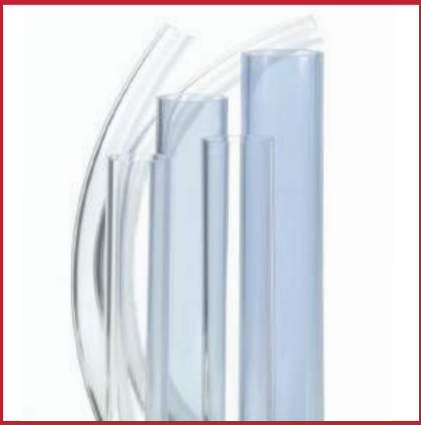
Excelon®

Schedule 40 and 80 PVC Pipe and Fittings



APPLICATIONS:
FOOD PROCESSING
DUAL CONTAINMENT
LABORATORY
CHEMICALS
ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

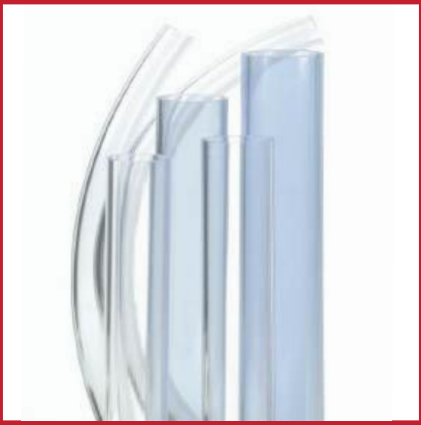
F-1000, R-2000, The 4000 Series and 8000 Series of Pipe, Tube and Fittings

Rigid • Flexible • Photo Black • Fittings

F-1000	Clear flexible PVC fittings
R-2000	Clear rigid tubing
F-4000	Clear flexible Schedule 40 PVC pipe
R-4000	Clear rigid Schedule 40 PVC pipe
DR-4000	Clear Schedule 40 DR Acrylic pipe
PB-4000	Photo black, UV resistant, rigid Schedule 40 PVC pipe
F-8000	Clear flexible Schedule 80 PVC pipe
R-8000	Clear rigid Schedule 80 PVC pipe
PB-8000	Photo black, UV resistant, rigid Schedule 80 PVC pipe

Excelon®

Schedule 40 and 80 PVC Pipe and Fittings



APPLICATIONS:

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PHOTOFINISHING EQUIPMENT

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REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

Introducing the Power of Flexible Technology

The benefits of PVC have always been easily identified and hold true for every product in the Excelon® System:

- Superior corrosion resistance
- Extensive range of chemical resistance
- Non-contaminating
- Smooth surface for unrestricted flow
- Lower sediment accumulation
- Non-conductive
- Strong pressure bearing capability
- Fast and reliable solvent welded fittings
- Ease of handling and installation.

The Excelon® name demonstrates a high level of purity, performance, and reliability by providing an adaptable and cost-effective solution for any piping application, especially when visual monitoring is critical. The Excelon® name has always meant quality.

At Thermoplastic Processes, we bring over 75 years of industry experience to our rigid PVC line of pipe and fittings. Only the finest materials are utilized in manufacturing the Excelon® System. Our product line includes Excelon® R-2000, rigid tubing, Excelon® R-4000, rigid schedule 40 pipe, and Excelon® R-8000, rigid schedule 80 pipe.

Completing the core of the Excelon® System are Excelon® F-1000, clear flexible fittings. Regardless of your application or piping requirement, Thermoplastic Processes and the Excelon® System can provide a clear and flexible solution.

Today, the Excelon® System presents new alternatives with some exciting twists...Flexible PVC pipe. Thermoplastic Processes unites both rigid and flexible technology to bring the broadest and most extensive clear piping product mix in the industry. Excelon® flexible PVC pipe provides new possibilities in system integrations and configurations. Thermoplastic Processes' flexible PVC pipe line includes Excelon® F-4000, flexible schedule 40 pipe and Excelon® F-8000, flexible schedule 80 pipe.

Excelon®

Schedule 40 and 80 PVC Pipe and Fittings

APPLICATIONS:

FOOD PROCESSING
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LABORATORY
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Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

The Power of Flexibility

Whether you're using the standard rigid pipe, tubing and fittings or our new flexible line of PVC pipe, all of our products at Thermoplastic Processes are manufactured in the United States with quality and care. The Excelon® system of tubes, pipe and fittings can be used for solid, powder, liquid, semi-pneumatic and pneumatic systems.

For Food Processing: all Excelon® products are produced from a non-toxic compound complying with FDA regulations 175.300, 178.2650 and 178.3790 for use in contact with food.

For Dual Containment: for quick visual monitoring of possible system blockage or detection for leaks and complete visibility in high purity applications.

In The Laboratory: accepted for its capability of handling a wide range of chemicals.

For Chemicals: superior resistance to strong oxidizing and reducing acids, and excellent resistance to mineral oils.

For Electrical Conduit: where visual tracing is important, combines the utmost flexibility.

For Photofinishing Equipment: photoblack and lightproof, permits compact design, high efficiency of flow rate, and complete visual control. Does not interact chemically with solutions.

For Thousands Of Other Uses: wherever and whenever pipe and tubing connections are required, always consider the Excelon® system.

APPLICATIONS:
ICE MACHINES
FOOD PROCESSING
CHEMICAL TRANSFER
TUBE EXTENSION

F-1000 Standard and Custom Flexible Fittings, and Configurations

A complete range of sizes in the shapes most often used to turn any tubing into a completely operative liquid, gas, or solid transmission system.

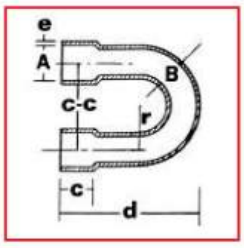
The soft flexible F-1000 fittings slide onto any tubing material (even metal or glass), absorb shocks, accommodate vibration, expansion and contraction. Friction fitted, clamped, or assembled with adhesives the F-1000 standard fittings provide angular flexibility from zero degrees to 180°. Standard F-1000 fittings are available from stock in a complete range of sizes, in the six most used shapes in tubing systems. Available shapes include: 180° U-bends, straight connectors, reducer fittings, 90° elbows, T-fittings, and Y-fittings.

F-1000 is also available in custom fittings. The range of custom engineered Excelon® fittings is virtually unlimited. They can be designed to meet the most compact requirements. Our technical representatives can analyze your needs and recommend the most economical and efficient design configuration and solution for your system.

F-1000 - 90° U-BEND FITTING

ITEM NO.	A	B	C	C-C	D	E	MAX WORKING PRESSURE	TUBING SIZE NO.
96201	3/8	1/4	3/8	1	1-1/8	1/16	66	F-1U
96202	7/16	5/16	7/16	1-1/8	1-1/4	1/16	56	F-2U
96203	1/2	3/8	1/2	1-1/4	1-3/8	1/16	50	F-3U
96204	5/8	7/16	5/8	1-1/2	1-7/8	3/32	59	F-4U
96205	3/4	1/2	3/4	1-3/4	2	1/8	66	F-5U
96206	7/8	5/8	7/8	2	2-1/4	1/8	58	F-6U
96207	1	3/4	1	2-1/4	2-1/2	1/8	50	F-7U
96208	1-1/8	7/8	1-1/8	2-3/4	3-1/8	1/8	45	F-8U
96209	1-1/4	1	1-1/4	3-1/2	3-5/8	1/8	40	F-9U
96210	1-3/8	1-1/8	1-3/8	4-1/2	4-1/2	1/8	36	F-10U
96211	1-1/2	1-1/4	1-1/2	5	5	1/8	34	F-11U
96213	2	1-1/2	2	7	6-1/4	1/4	50	F-13U
96215	2-1/2	2	2-1/2	9	8-1/4	1/4	40	F-15U
96217	3	2-1/2	3	10	9-1/2	1/4	34	F-17U

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.



REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

Excelon®

Schedule 40 and 80 PVC Pipe and Fittings

APPLICATIONS:

ICE MACHINES
FOOD PROCESSING
CHEMICAL TRANSFER
TUBE EXTENSION

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

F-1000 - 90° REDUCER FITTING

ITEM NO.	A	B	C	D	E	MAX WORKING PRESSURE	TUBING SIZE NO.
96301	3/8	1/4	3/8	5/8	1/16	66	F-1R
96302	7/16	5/16	7/16	3/4	1/16	56	F-2R
96303	1/2	3/8	1/2	13/16	1/16	50	F-3R
96304	5/8	7/16	5/8	1-1/16	3/32	59	F-4R
96305	3/4	1/2	3/4	1-3/8	1/8	66	F-5R
96306	7/8	5/8	7/8	1-9/16	1/8	58	F-6R
96307	1	3/4	1	1-3/4	1/8	50	F-7R
96308	1-1/8	7/8	1-1/8	2	1/8	45	F-8R
96309	1-1/4	1	1-1/4	2-1/8	1/8	40	F-9R
96310	1-3/8	1-1/8	1-3/8	2-3/8	1/8	36	F-10R
96311	1-1/2	1-1/4	1-1/2	2-5/8	1/8	34	F-11R
96313	2	1-1/2	2	3-3/8	1/4	50	F-13R
96315	2-1/2	2	2-1/2	4	1/4	40	F-15R
96317	3	2-1/2	3	4-1/2	1/4	34	F-17R

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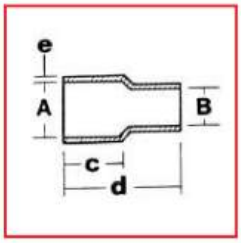
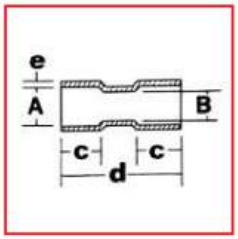


F-1000 - 90° CONNECTOR FITTING

ITEM NO.	A	B	C	D	E	MAX WORKING PRESSURE	TUBING SIZE NO.
96401	3/8	1/4	3/8	1-1/4	1/16	66	F-1C
96402	7/16	5/16	7/16	1-1/2	1/16	56	F-2C
96403	1/2	3/8	1/2	1-5/8	1/16	50	F-3C
96404	5/8	7/16	5/8	2-1/8	3/32	59	F-4C
96405	3/4	1/2	3/4	2-3/4	1/8	66	F-5C
96406	7/8	5/8	7/8	3-1/8	1/8	58	F-6C
96407	1	3/4	1	3-1/2	1/8	50	F-7C
96408	1-1/8	7/8	1-1/8	3-7/8	1/8	45	F-8C
96409	1-1/4	1	1-1/4	4-1/4	1/8	40	F-9C
96410	1-3/8	1-1/8	1-3/8	4-3/4	1/8	36	F-10C
96411	1-1/2	1-1/4	1-1/2	5-1/4	1/8	34	F-11C
96413	2	1-1/2	2	6-3/4	1/4	50	F-13C
96415	2-1/2	2	2-1/2	8	1/4	40	F-15C
96417	3	2-1/2	3	9	1/4	34	F-17C

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.



Excelon®

Schedule 40 and 80 PVC Pipe and Fittings

APPLICATIONS:

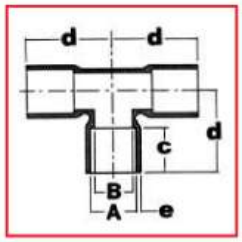
ICE MACHINES
FOOD PROCESSING
CHEMICAL TRANSFER
TUBE EXTENSION

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

F-1000 - T FITTING

ITEM NO.	A	B	C	D	E	MAX WORKING PRESSURE	TUBING SIZE NO.
96601	3/8	1/4	3/8	5/8	3/32	69	F-1T
96602	7/16	5/16	7/16	3/4	3/32	62	F-2T*
96603	1/2	3/8	1/2	7/8	1/8	50	F-3T
96604	5/8	1/2	5/8	1	1/8	48	F-4T
96605	3/4	1/2	3/4	1-1/8	5/32	41	F-5T*
96606	7/8	5/8	7/8	1-1/2	5/32	37	F-6T
96607	1	3/4	1	1-3/4	5/32	**	F-7T
96608	1-1/8	7/8	1-1/8	2	5/32	**	F-8T*
96609	1-1/4	1	1-1/4	2-1/4	3/16	**	F-9T
96610	1-3/8	1-1/8	1-3/8	2-1/2	3/16	**	F-10T*
96611	1-1/2	1-1/4	1-1/2	2-3/4	3/16	**	F-11T
96613	2	1-1/2	2	3-1/4	3/16	**	F-13T*
96615	2-1/2	2	2-1/2	4	7/32	**	F-15T*
96617	3	2-1/2	3	5	7/32	**	F-17T*

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.
** Special order item.*
*** Call for additional information.*



F-1000 - Y FITTING

ITEM NO.	A	B	C	C-C	D	E	MAX WORKING PRESSURE	TUBING SIZE NO.
96501	3/8	1/4	3/8	13/16	1-1/2	1/8	80	F-1Y
96502	7/16	5/16	7/16	7/8	1-3/4	1/8	69	F-2Y*
96503	1/2	3/8	1/2	1	1-7/8	1/8	62	F-3Y
96504	5/8	1/2	5/8	1	2-1/2	1/8	50	F-4Y
96505	3/4	1/2	3/4	1	3	5/32	48	F-5Y*
96506	7/8	5/8	7/8	1-3/8	3-1/2	5/32	41	F-6Y
96507	1	3/4	1	1-1/2	4	5/32	37	F-7Y
96508	1-1/8	7/8	1-1/8	1-5/8	4-1/4	5/32	32	F-8Y*
96509	1-1/4	1	1-1/4	1-3/4	4-1/2	3/16	**	F-9Y
96510	1-3/8	1-1/8	1-3/8	2-1/4	5	3/16	**	F-10Y*
96511	1-1/2	1-1/4	1-1/2	2-1/2	6	3/16	**	F-11Y
96513	2	1-3/4	2	3-5/8	8	3/16	**	F-13Y*
96515	2-1/2	2	2-1/2	6	10-1/2	7/32	**	F-15Y*
96517	3	2-1/2	3	7	12	7/32	**	F-17Y*

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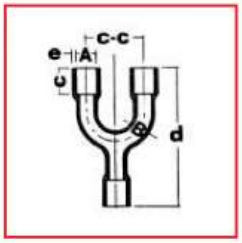
** Special order item.*
*** Call for additional information.*



Excelon®

Schedule 40 and 80 PVC Pipe and Fittings

APPLICATIONS:

ICE MACHINES
FOOD PROCESSING
CHEMICAL TRANSFER
TUBE EXTENSION

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

F-1000 - 90° ELBOW FITTING

ITEM NO.	A	B	C	D	E	R	MAX WORKING PRESSURE	TUBING SIZE NO.
96101	3/8	1/4	3/8	1-1/16	1/16	1/4	66	F-1E
96102	7/16	5/16	7/16	1-1/8	1/16	3/8	56	F-2E
96103	1/2	3/8	1/2	1-1/4	1/16	1/2	50	F-3E
96104	5/8	7/16	5/8	1-5/8	3/32	5/8	59	F-4E
96105	3/4	1/2	3/4	2	1/8	3/4	66	F-5E
96106	7/8	5/8	7/8	2-3/8	1/8	1	58	F-6E
96107	1	3/4	1	2-3/4	1/8	1-1/8	50	F-7E
96108	1-1/8	7/8	1-1/8	3-1/4	1/8	1-1/2	45	F-8E
96109	1-1/4	1	1-1/4	3-5/8	1/8	1-3/4	40	F-9E
96110	1-3/8	1-1/8	1-3/8	4-1/8	1/8	2	36	F-10E
96111	1-1/2	1-1/4	1-1/2	4-3/4	1/8	2-1/2	34	F-11E
96113	2	1-1/2	2	6-1/2	1/4	3-1/2	50	F-13E
96115	2-1/2	2	2-1/2	8-1/4	1/4	4-1/2	40	F-15E
96117	3	2-1/4	3	9-1/8	1/4	5	34	F-17E

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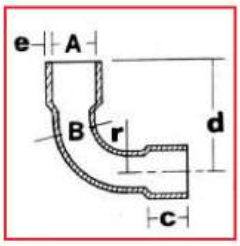

F-1000 - 4-WAY FITTING

ITEM NO.	A	B	C	D	E	MAX WORKING PRESSURE	TUBING SIZE NO.
96701	3/8	1/4	3/8	5/8	3/32	66	F-1X
96702	7/16	5/16	7/16	3/4	3/32	56	F-2X
96703	1/2	3/8	1/2	7/8	1/8	50	F-3X
96704	5/8	7/16	5/8	1	1/8	59	F-4X
96705	3/4	1/2	3/4	1-1/8	5/32	66	F-5X
96706	7/8	5/8	7/8	1-1/2	5/32	58	F-6X
96707	1	3/4	1	1-3/4	5/32	50	F-7X
96708	1-1/8	7/8	1-1/8	2	5/32	45	F-8X
96709	1-1/4	1	1-1/4	2-1/4	3/16	40	F-9X
96710	1-3/8	1-1/8	1-3/8	2-1/2	3/16	36	F-10X
96711	1-1/2	1-1/4	1-1/2	2-3/4	3/16	34	F-11X
96713	2	1-1/2	2	3-1/4	3/16	50	F-13X
96715	2-1/2	2	2-1/2	4	7/32	40	F-15X
96717	3	2-1/4	3	5	7/32	34	F-17X

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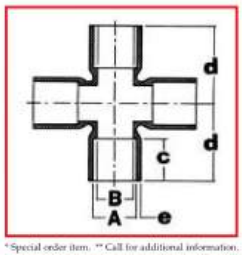
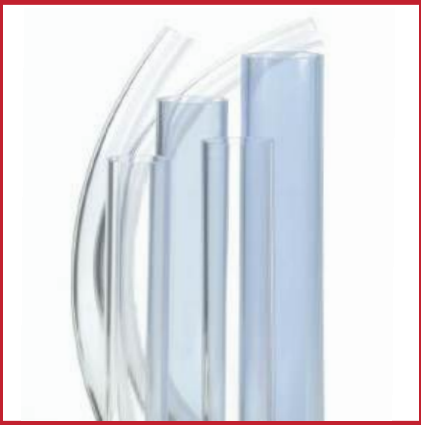


* Special-order item. ** Call for additional information.

Excelon®

Schedule 40 and 80 PVC Pipe and Fittings



APPLICATIONS:

FOOD PROCESSING
DUAL CONTAINMENT
LABORATORY
CHEMICALS
ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

R-2000 Clear Rigid PVC Tubing

Manufactured with the same excellent clarity and durability characteristics as every Excelon® product, the R-2000 FDA compound can be used for most food contact applications. Combining the advantages of a clear, rigid tubing system with the versatility of clear, flexible fittings F-1000, provides total visual control.

The compound used for Excelon® R-2000 meets FDA requirements for both ingredients and extraction. Allowing R-2000 to be used in contact with the following types of foods: Nonacid, aqueous products; Acidic, aqueous products; Dairy products and modifications; Low moisture fats and oils; Alcoholic and nonalcoholic beverages; Bakery products; Dry solids.

Whether installed with cements or clamps for easy detachment, the rigid tubing in conjunction with flexible fittings minimize shutdowns by allowing rapid assembly for emergency bypass systems. Where vibration persists or expansion and contraction conditions exist, the Excelon® system is ideal.

R-2000 - FDA TUBING

ITEM NO.	ID	OD	W	MAX WORKING PRESSURE 73 °F	LG	FT / CTN
970	.170	.250	.040	448	6'	3000'
9700	.187	.312	.062	366	6'	1680'
9701	.250	.375	.062	330	6'	1200'
9702	.312	.437	.062	283	6'	400'
9703	.375	.500	.062	248	6'	600'
9704	.500	.625	.062	198	6'	750'
9705	.625	.750	.062	165	6'	600'
9706	.750	.875	.062	142	6'	510'
9707	.875	1	.062	124	6'	390'
9708	1	1.125	.062	110	6'	360'
9709	1.125	1.250	.062	99	6'	300'
9710	1.250	1.375	.062	90	6'	210'
9711	1.375	1.500	.062	83	6'	72'
9712	1.625	1.750	.062	70	6'	144'
9713	1.875	2	.062	62	6'	78'
9714	2.125	2.250	.062	55	6'	90'
9715	2.375	2.500	.062	50	6'	72'
9716	2.625	2.750	.062	44	6'	54'
9717	2.875	3	.062	41	6'	48'

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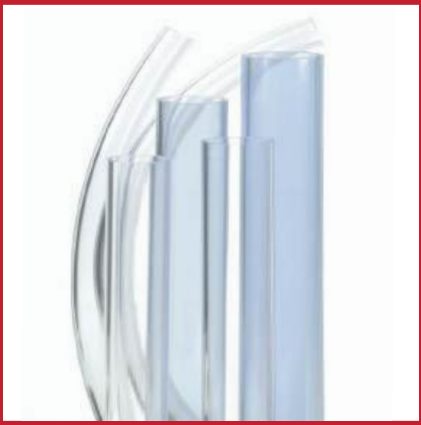
Excelon®

Schedule 40 and 80 PVC Pipe and Fittings



APPLICATIONS:

FOOD PROCESSING
DUAL CONTAINMENT
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ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

R-4000, R-8000, Clear Rigid Pipe

Excelon® R-4000 Schedule 40 pipe and R-8000 Schedule 80 pipe are both clear and impact resistant superior PVC. Manufactured by low stress extrusion, these pipes offer unique physical properties to improve system integrity, help maintain both safety and environmental regulatory standards, provide visual monitoring, and keep production rates up.

Pipe and fittings can be joined together in simple steps using cleaner, primer, and cement. Adapter fittings can be used to incorporate Excelon® R-4000 or R-8000 into your existing systems of other polymers or metals.

All R-4000 (except 6") and R-8000 pipes and fittings are manufactured in IPS (Iron Pipe Sizes) to Schedule 40 and 80 dimensions. Please note that the pressure rating of thermoplastic pipe is conditional with the pipe diameter as well as the systems operating temperature. The pressure rating of the system decreases as the temperature rises. Smaller diameter pipe will withstand higher pressures than larger diameter pipe at increased temperatures.

R-4000 - CLEAR SCHEDULE 40 PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	MAX WP PSI	LG	FT / CTN
43018	1/4"	0.346	.54	.097	390	8'	600'
43028	3/8"	0.473	.675	.101	310	8'	600'
4303G	1/2"	0.602	.840	.119	300	8'	80'
4304G	3/4"	0.804	1.050	.123	240	8'	80'
4305G	1"	1.029	1.315	.143	220	8'	80'
43068G	1-1/4"	1.36	1.660	.150	180	8'	72'
4307G	1-1/2"	1.59	1.900	.155	170	8'	80'
4308G	2"	2.047	2.375	.164	140	8'	80'
43098G	2-1/2"	2.445	2.875	.215	150	8'	32'
4310G	3"	3.042	3.500	.229	130	8'	48'
43118	3-1/2"	3.521	4	.240	120	8'	8'
4312G	4"	3.998	4.500	.251	110	8'	8'
4316*	6"	6.375	6.625	.125	45	10'	10'

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

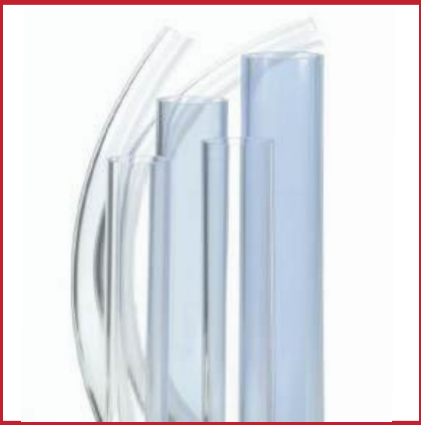
R-8000 - CLEAR SCHEDULE 80 PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	MAX WP PSI	LG	FT / CTN
98018	1/4"	.282	.540	.129	570	8'	600'
98028	3/8"	.403	.675	.136	460	8'	400'
98038	1/2"	.526	.840	.157	420	8'	280'
98048	3/4"	.722	1.050	.164	340	8'	200'
98058	1"	.935	1.315	.190	320	8'	120'
98068	1-1/4"	1.254	1.660	.203	260	8'	72'
98078	1-1/2"	1.476	1.900	.212	240	8'	72'
98088	2"	1.913	2.375	.231	200	8'	32'
98098P	2-1/2"	2.291	2.875	.292	210	8'	32'
98108	3"	2.864	3.500	.318	190	8'	16'
98118	4"	3.786	4.500	.357	160	8'	8'

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

Excelon®

Schedule 40 and 80 PVC Pipe and Fittings



APPLICATIONS:

FOOD PROCESSING
DUAL CONTAINMENT
LABORATORY
CHEMICALS
ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

Exceptional Use in Dual Containment Systems

The clarity of the Excelon® System makes it especially beneficial in dual containment systems. In applications requiring control of aggressive high-purity chemicals, quick visual identification of primary tubing, monitoring possible blockage areas, and easy leak detection is crucial. This provides improved safety to the workplace as well as increased environmental protection from hazardous substances.

Even non-corrosive materials may pose potential problems when there are spills or leaks from the primary pipe. Primary pipe failure can be detected and corrected immediately saving hours of production down time. Electrical wiring can be protected from system leaks and at the same time, shorts can be visually detected by their smokey residue. Damage to equipment and the production facility can be prevented in a dual containment system when difficult to clean materials are being processed, i.e., syrups, oils, and dyes. With sizes ranging from 1/4" to 6" diameters, the Excelon® System of pipe provides ample clearance and clarity for a triple containment system.

Sight Gauge Assemblies

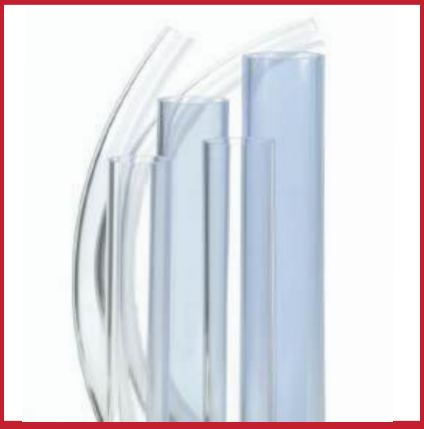
Since Excelon® R-4000 and R-8000 are compatible with other industry standard PVC products, they work extremely well with sight gauge applications.

Same Rigid Pipe, Thinner Wall

When your application does not require a thick walled pipe, Excelon® R-4000 Thin Wall provides a cost effective solution with the same Thermoplastics Processes quality.

CLEAR THIN WALL PVC PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	LG
9908	2"	2.139	2.375	.118	10'
9910	3"	3.042	3.500	.118	10'
9912	4"	3.998	4.500	.118	10'



APPLICATIONS:
FOOD PROCESSING
DUAL CONTAINMENT
LABORATORY
CHEMICALS
ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

F-4000, F-8000, Transparent Flexible PVC Pipe

Since 90° turns cause back flow and back pressure in a system, you have regularly used rigid sweeps or had to heat bend a pipe. Thermoplastic Processes now provides a flexible solution, Excelon® F-4000 flexible schedule 40 pipe and Excelon® F-8000 flexible schedule 80 pipe which eliminates heat bending. Heat bending in the field is a great challenge as well as a time consuming process, and if not done at the proper temperature can induce excessive stress into the pipe.

F-4000 - CLEAR FLEXIBLE SCHEDULE 40 PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	LG	WORKING PSI	BEND RADIUS	FT / CTN
4003	1/2"	.602	.840	.119	10'	65	2.500"	500'
4004	3/4"	.804	1.050	.123	10'	55	3"	200'
4005	1"	1.029	1.315	.143	10'	50	4"	200'
4007	1-1/2"	1.590	1.900	.155	10'	45	7"	150'
4008	2"	2.047	2.375	.164	10'	40	9"	120'

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

F-8000 - CLEAR FLEXIBLE SCHEDULE 80 PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	LG	WORKING PSI	BEND RADIUS
9503	1/2"	.526	.840	.157	10'	93	2.5"
9504	3/4"	.722	1.050	.164	10'	71	3"
9505	1"	.935	1.315	.190	10'	63	4"
9507	1-1/2"	1.476	1.9	.212	10'	44	7"
9508	2"	1.913	2.375	.231	10'	37	9"

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

Flexible Sweeps

With Excelon® F-4000 and F-8000, you can now create sweeps and turns in your pipe system like never before. Flexible sweeps are one piece sweeps that can be installed instantly.

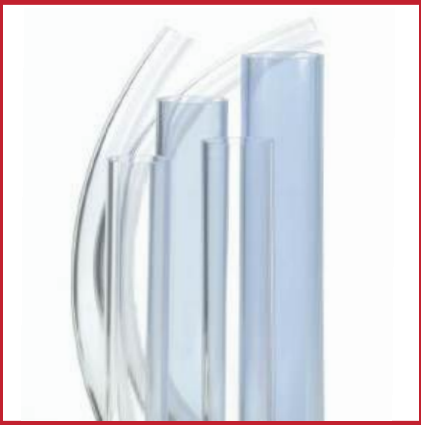
Smoother turns have many benefits for any pipe system:

- They create less friction in fluid handling
- Fewer restrictions
- Decreases back pressure
- Allows for serpentine installation
- Works with fluid, powder, and solids
- Expansion joints
- Prevents fluid from heating up
- Goosenecks
- Works with standard pinch valves
- Misalignment is no longer an issue
- Installation time is decreased
- Provides a simpler CIP

SERPENTINE

GOOSENECK

DUAL CONTAINMENT PINCH VALVE



APPLICATIONS:
FOOD PROCESSING
DUAL CONTAINMENT
LABORATORY
CHEMICALS
ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, FDA, and Prop 65 compliant

PB-4000, PB-8000, Photo Black PVC Pipe

The newest additions to the rigid line of the Excelon® System are Excelon® PB-4000 and PB-8000. Opaque and UV resistant, Excelon® Photo Black pipe allows no light to pass through protecting any light sensitive material that is being processed.

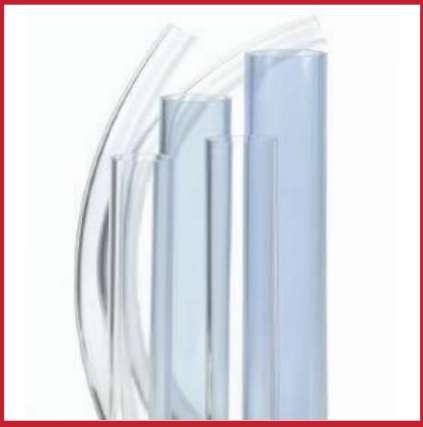
PB-4000 - BLACK RIGID SCHEDULE 40 PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	LG
43401	1/4"	.344	.540	.098	10'
43402	3/8"	.473	.675	.101	10'
43403	1/2"	.602	.840	.119	10'
43404	3/4"	.804	1.050	.123	10'
43405	1"	1.029	1.315	.143	10'
43406	1-1/4"	1.360	1.660	.150	10'
43407	1-1/2"	1.590	1.900	.155	10'
43408	2"	2.047	2.375	.164	10'

PB-8000 - BLACK RIGID SCHEDULE 80 PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	LG
43801	1/4"	.282	.540	.129	8'
43802	3/8"	.403	.675	.136	8'
43803	1/2"	.526	.840	.157	8'
43804	3/4"	.722	1.050	.164	8'
43805	1"	.935	1.315	.190	8'
43806	1-1/4"	1.254	1.660	.203	8'
43807	1-1/2"	1.476	1.900	.212	8'
43808	2"	1.913	2.375	.231	8'

Excelon®
Schedule 40 DR Acrylic Pipe



APPLICATIONS:
DUAL CONTAINMENT
LABORATORY CHEMICALS
ELECTRICAL CONDUIT
LIGHTING APPLICATIONS
ARCHITECTURAL DESIGNS

Custom sizes, lengths, and colors are available upon request.

REGULATORY COMPLIANCE: REACH, RoHS, and Prop 65 compliant

DR-4000 Clear, Schedule 40 DR Acrylic Pipe

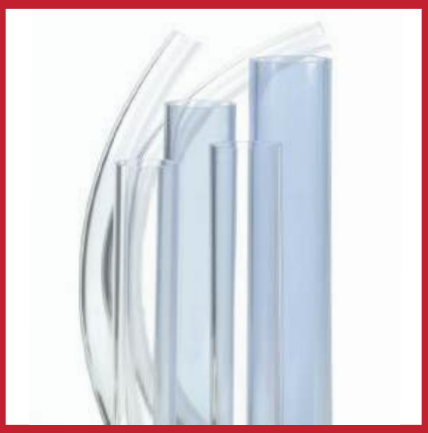
When ultimate clarity is necessary, you need Excelon® DR-4000. Excelon® Clear DR Acrylic pipe not only provides an incredibly clear view, but the specially formulated Acrylic compound gives it superior impact strength. Unlike standard Acrylic products, DR-4000 resists the adverse effects of outdoor weathering and retains its physical properties as well as its clear appearance after long periods of exposure.

DR-4000 - CLEAR ACRYLIC SCHEDULE 40 PIPE

ITEM NO.	NOMINAL PIPE SIZE	ID	OD	W	LG
5201	1/4"	.346	.540	.097	10'
5202	3/8"	.473	.675	.101	10'
5203	1/2"	.602	.840	.119	10'
5204	3/4"	.804	1.050	.123	10'
5205	1"	1.029	1.315	.143	10'
5206	1-1/4"	1.360	1.660	.150	10'
5207	1-1/2"	1.590	1.900	.155	10'

Excelon®

Schedule 40 and 80 PVC Pipe and Fittings



APPLICATIONS:

FOOD PROCESSING
DUAL CONTAINMENT
LABORATORY
CHEMICALS
ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

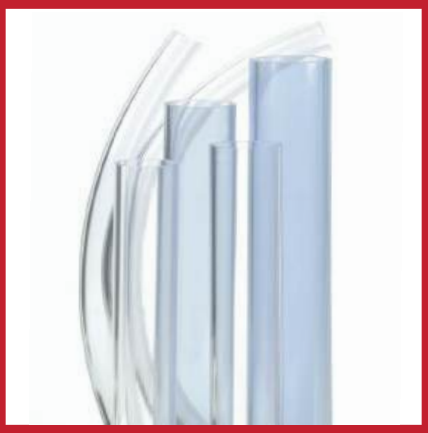
PVC Chemical Resistance Chart

RECOMMENDED (tested @ 72° F, 104°F)

ACETIC ACID, 10%, 20%
ACETYLENE
ADIPIC ACID
ALUM
ALUMINUM ALUM
ALUMINUM CHLORIDE
ALUMINUM FLUORIDE
ALUMINUM HYDROXIDE
ALUMINUM OXYCHLORIDE
ALUMINUM NITRATE
ALUMINUM SULFATE
AMMONIA (DRY GAS)
AMMONIUM ACETATE
AMMONIUM ALUM
AMMONIUM BIFLUORIDE
AMMONIUM CARBONATE
AMMONIUM CHLORIDE
AMMONIUM HYDROXIDE
AMMONIUM HYDROXIDE, 10%, 28%
AMMONIUM METAPHOSPHATE
AMMONIUM NITRATE
AMMONIUM PERSULFATE
AMMONIUM PHOSPHATE
AMMONIUM SULFATE
AMMONIUM SULFIDE
AMMONIUM THIOCYANATE
ANTHRAQUINONE SULFONIC ACID
ANTIMONY TRICHLORIDE
ARSENIC ACID, 80%
BARIUM CARBONATE
BARIUM CHLORIDE
BARIUM HYDROXIDE
BARIUM SULFATE
BARIUM SULFIDE
BEER
BEET SUGAR LIQUORS
BENZOIC ACID
BISMUTH CARBONATE
BLACK LIQUOR
BLEACH (12% CL)
BORAX
BORIC ACID
BREEDERS PELLETS (fish derivative)
BROMIC ACID
CADMIUM CYANIDE
CALCIUM BISULFIDE
CADMIUM BISULFITE
CALCIUM CARBONATE
CALCIUM CHLORIDE
CALCIUM HYDROXIDE
CALCIUM HYPOCHLORITE
CALCIUM NITRATE
CALCIUM SULFATE
CARBON DIOXIDE
CARBON MONOXIDE
CARBONIC ACID
CASTOR OIL
CAUSTIC POTASH
CAUSTIC SODA
CHLORAL HYDRATE
CHLORIC ACID, 20%
CHLORIDE (WATER)
CHLORINE WATER
CHROME ALUM
CITRIC ACID
COPPER CARBONATE
COPPER CHLORIDE
COPPER CYANIDE
COPPER FLUORIDE
COPPER NITRATE
COPPER SULFATE
CORN SYRUP
COTTONSEED OIL
CUPRIC FLUORIDE
CUPRIC SULFATE
CUPROUS CHLORIDE
DETERGENTS
DEXTRIN
DEXTROSE
DIAZO SALTS
DIGLYCOLIC ACID
DISODIUM PHOSPHATE
DISTILLED WATER
ETHYLENE GLYCOL
FATTY ACIDS
FERRIC CHLORIDE
FERRIC HYDROXIDE
FERRIC NITRATE
FERRIC SULFATE
FISH SOLUBLES
FLUOBORIC ACID
FLUORINE GAS (WET)
FLUOROSILICIC ACID, 25%
FRUCTOSE
FRUIT JUICES & PULP
GALLIC ACID
GLUCOSE
GLYCOLIC ACID
GRAPE SUGAR
HYDROBROMIC ACID, 20%
HYDROCHLORIC ACID, 10%, 30%, 35%
HYDROCYANIC ACID
HYDROGEN
HYDROGEN PEROXIDE, 30%, 50%, 90%
HYDROGEN SULFIDE
HYDROQUINONE
HYDROXYLAMINE SULFATE
HYPOCHLORENE ACID
HYPOCHLOROUS ACID
KEROSENE
KRAFT LIQUORS
LACTIC ACID, 25%
LAURIC ACID
LEAD ACETATE
LEAD CHLORIDE
LEAD SULFATE
LINOLEIC ACID
LINSEED OIL
LITHIUM BROMIDE
LUBRICATING OIL, ASTM #1, ASTM #2
MACHINE OIL
MAGNESIUM CARBONATE
MAGNESIUM CHLORIDE
MAGNESIUM HYDROXIDE
MAGNESIUM NITRATE
MAGNESIUM SULFATE
MALEIC ACID
MANUFACTURED GAS
MERCURIC CHLORIDE
MERCURIC CYANIDE
MERCUROUS NITRATE
MERCURY
METHYL ALCOHOL
METHYL SULFURIC ACID
MILK
MOLASSES
MURIATIC ACID
NATURAL GAS
NICKEL CHLORIDE
NICKEL NITRATE
NICKEL SULFATE
NICOTINE
NICOTINE ACID
NITROUS OXIDE
OILS & FATS
OIL, SOUR CRUDE
OLEIC ACID
OXALIC ACID
OXYGEN
OZONE
PALMITRIC ACID, 10%
PERCHLORIC ACID, 10%
PETROLEUM LIQUEFIER
PHOSGENE, GAS
PHOSPHORIC ACID, 10%, 25%, 75%, 85%
PHOTO, SOLUTIONS DK
#3
DEKTAL DEVELOPER
KODAK FIXER
KODAK SHORT STOP
POTASSIUM ALUM
POTASSIUM BICARBONATE
POTASSIUM BICHROMATE
POTASSIUM BORATE
POTASSIUM BROMIDE
POTASSIUM CARBONATE
POTASSIUM CHLORATE
POTASSIUM CHLORIDE
POTASSIUM CHROMATE
POTASSIUM CYANIDE
POTASSIUM DICHROMATE
POTASSIUM FERRICYANIDE
POTASSIUM FERROCYANIDE
POTASSIUM FLUORIDE
POTASSIUM HYDROXIDE
POTASSIUM NITRATE
POTASSIUM PERBORATE
POTASSIUM PERCHLORATE
POTASSIUM PERMANGANATE, 10%
POTASSIUM SULFATE
PROPANE
PROPANE GAS
PLATING SOLUTIONS
BRASS
CADMIUM
COPPER
GOLD
INDIUM
LEAD
NICKEL
RHODIUM
SILVER
TIN
ZINC
RAYON COAGULATING BATH
SEAWATER
SEWERAGE
SILICIC ACID
SILVER CYANIDE
SILVER NITRATE
SILVER PLATING SOLUTION
SILVER SULFATE SOAPS
SODIUM ACETATE
SODIUM ALUM
SODIUM BENZOATE
SODIUM BICARBONATE
SODIUM BISULFATE
SODIUM BISULFITE
SODIUM BROMIDE
SODIUM CARBONATE
SODIUM CHLORATE
SODIUM CHLORIDE
SODIUM CYANIDE
SODIUM DICHROMATE
SODIUM FERRICYANIDE
SODIUM FERROCYANIDE
SODIUM FLUORIDE
SODIUM HYDROXIDE, 10%, 30%, 50%
SODIUM HYPOCHLORITE
SODIUM NITRATE
SODIUM SULFATE
SODIUM SULFIDE
SODIUM SULFITE
SOUR CRUDE OIL (WEST TEXAS)
STANNIC CHLORIDE
STARCH
STEARIC ACID
SULFUR
SULFUR DIOXIDE, (DRY)
SULFUR TRIOXIDE
SULFURIC ACID, 3%, 10%, 20%, 33%, 50%, 70%
SULFUROUS ACID
TAN OIL
TANNIC ACID
TARTARIC ACID
TANNING LIQUORS
TRISODIUM PHOSPHATE
UREA
URINE
VINEGAR
WATER, ACID MINE
WATER, DEIONIZED
WATER, DEMINERALIZED
WATER, DISTILLED
WATER, FRESH
WATER, SALT
WHISKEY
WINES
ZINC CHLORATE
ZINC SULFATE
ZINC NITRATE

RECOMMENDED (@ 72° F)

ANTHRAQUINONE
ARYLSULFONIC ACID
BUTYL ALCOHOL
BUTYL PHENOL
CELLOSOLVE
CHLORACETIC ACID
CRESYLIC ACID, 50%
CRUDE OIL
ETHYL ALCOHOL
FORMALDEHYDE
FORMIC ACID
HEPTANE



APPLICATIONS:

FOOD PROCESSING
DUAL CONTAINMENT
LABORATORY
CHEMICALS
ELECTRICAL CONDUIT
PHOTOFINISHING EQUIPMENT

Custom sizes, lengths, and colors are available upon request.

PVC CHEMICAL RESISTANCE CHART (CONTINUED)

HEXANOL, TERTIARY
HYDROFLUORIC ACID, 48%
LINOLEIC OIL
LUBRICATING OIL, ASTM #3
METHYL SULFATE
NAPHTHA
NITRIC ACID, 10%, 30%, 60%
PHENYLDHYDRAZINE HYDROCHLORIDE
PHOSPHORUS (YELLOW)
PHOSPHORUS PENTRIOXIDE
POTASSIUM PERMANGANATE, 25% @125°F
PROPARGYL ALCOHOL
PROPYL ALCOHOL
TETRAETHYL LEAD
TRIETHANOLAMINE
TRIMETHYL PROPANE

NOT RECOMMENDED

ACETALDEHYDE
ACETIC ACID, PURE
ACETIC ACID, 80%
ACETIC ACID, GLACIAL
ACETIC ANHYDRIDE
ACETONE
ALLYL ALCOHOL, 96%
ALLYL CHLORIDE
AMMONIA (LIQUID)
AMMONIUM FLUORIDE, 25%
AMYL ACETATE
AMYL ALCOHOL
AMYL CHLORIDE
ANILINE
ANILINE CHLOROHYDRATE
ANILINE HYDROCHLORIDE
AQUA REGIA
AROMATIC HYDROCARBONS
BENZALDEHYDE, 10% & Above
BENZENE
BROMINE, LIQUID
BROMINE WATER
BUTADIENE
BUTANE
BUTANOL, PRIMARY
BUTANOL, SECONDARY
BUTYL ACETATE
BUTYNE DIOL
BUTYRIC ACID
CARBON BISULFIDE
CARBON TETRACHLORIDE
CHLORINE (DRY)
CHLORINE, GAS
CHLORINE GAS (WET)
CHLOROBENZENE
CHLOROFORM
CHROMIC ACID, 10%, 50%
CRESOL
CROTONALDEHYDE
CYCLOHEXANOL
CYCLOHEXANONE
DIMETHYLAMINE
DIOCTYLPHTHALATE
ESTERS
ETHERS
ETHYL ACETATE
ETHYL ACRYLATE
ETHYL CHLORIDE
ETHYL ETHER
ETHYLENE BROMIDE
ETHYLENE CHLOROPHYDRIN
ETHYLENE DICHLORIDE
ETHYLENE OXIDE
FLUORINE, GAS
FURFURAL
HEXANE
HYDROFLUORIC ACID, 50%
IODINE
KETONES
LIQUORS
METHYL CHLORIDE
METHYLENE CHLORIDE
METHYL ETHYL KETONE
METHYL ISO-BUTYL KETONE
NAPHTHALENE
NITRIC ACID, ANHYDROUS
NITRIC ACID, 68%
NITROBENZENE
OLEUM
PALMITRIC ACID, 70%
PERACETIC ACID, 40%
PERCHLORIC ACID, 15%, 70%
PHENYLDHYDRAZINE
PHOSGENE, LIQUID
PHOSPHORUS TRICHLORIDE
PICRIC ACID
PROPYLENE DICHLORIDE
STODDARDS SOLVENT
SULFUR DIOXIDE (WET)
SULFURIC ACID, 80%, 85%, 94%, 95%
TETRAHYDROFURANE
THIONYL CHLORIDE
TITANIUM TETRACHLORIDE
TOLUOL or TOLUENE
TRIBUTYL PHOSPHATE
TRICHLOROETHYLENE
TURPENTINE
VINYL ACETATE
XYLENE or XYLOL

Values listed are typical and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

Thermoplastic Processes