



All Drossbach's products are compliant with the **European Union's Directive 2002/95/EU (RoHS) and REACH Regulation**.

**Product Specifications**

\* Drossbach **IMDS submissions** are available for all products upon request.

Material & Code	Tech. Data Sheet	Delphi (Packard)	Ford	General Motors	Chrysler	ASTM	Flame Rating ④	UV Inhibitor	Resistance		Flexibility
									Chemical	Abrasion	

**Polyethylene - Operating Temperature -40 to +93C (-40 to +200F)**

DE	TD-013							No	Good	Excellent	Excellent
HV	TD-015							No	Good	Excellent	Excellent
KE	TD-018	M-2092						No	Good	Good	Excellent
PE	TD-013							No	Good	Good	Excellent
FE	TD-003					DR-006-SE	No	Good	Good	Good	Excellent
VE	TD-019					UL-94 V2	No	Good	Good	Good	Excellent
V0	TD-014					UL-94 V0	No	Good	Good	Good	Excellent
SE	TD-002		ESB-M4D152-A					No	Good	Good	Excellent

**Nylon - Operating Temperature -40 to +149C (-40 to +300F)**

ND	TD-005							No	Good	Good	Good
NF	TD-007		WSS-M4D933-A1 ES-XU5T-14A099-AA		MS-DB41 CPN 4059	D4066PA283	FMVSS 302	No	Good	Good	Good
NN	TD-022						UL-94 V1 FMVSS 302	Yes	Good	Good	Good
NP	TD-008	M-2170		GMP.PA6.003 GM 7001-M-PA6	MS-DB41 CPN-2785	D4066PA260	UL-94 HB FMVSS 302	No	Excellent	Excellent	Excellent

**Polypropylene - Operating Temperature -40 to +135C (-40 to +275F)**

FP	TD-023					DR-006-SE	No	Good	Good	Good	Excellent
PP	TD-009							No	Excellent	Good	Good
RP	TD-011	M-2262-001			MS-DB532-B CPN-2796			No	Excellent	Good	Excellent
VP	TD-010					UL-94 V2	No	Good	Good	Good	Excellent

**Polyester - Operating Temperature -40 to +160C (-40 to 320F)**

PT	TD-001	M-2373						No	Excellent	Excellent	Excellent
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**Products Listed are standard products. Unique sizes, materials & colours are available but are special order and subject to set-up & minimum quantities costs. Please, contact you Sales representatives for more info.**

**Notes:**

- ① Designates preliminary dimensions of a new or modified product derived from initial statistical studies only and will be verified after further production runs.
- ② The "V0" product is designated **non-Halogenated product**
- ③ This product is manufactured with a "UV inhibitor" additive. Drossbach does not claim or state any UV life or warranty for this product
- ④ All "UL" and FMVSS 302 flame ratings are for the resin used to manufacture our product, not for our end product. The ratings are created by testing standard "UL" or FMVSS plaque specimens, not tubing samples.

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**DRAWING#: DWCS-001**

**REV#: 19**

**Product Dimensions**

Nominal ID Diameter	Dia. Code	Units	Dimension "A"		Dimension "B"		Dim. "C" Wall Min	Dim. (E) Corr Ht. Ref.
			ID	OD	ID	OD		
			Min	Max.	Min	Max.		
1/4" (6 mm)	014	mm	6.02	6.76	9.45	10.16	0.11	1.71
1/4" (7 mm)	07L	mm	6.50	7.01	9.47	10.11	0.11	1.52
3/8" (9 mm)	038	mm	8.66	9.65	12.59	13.36	0.12	1.91
3/8" (9 mm)	09L	mm	0.341	0.380	0.496	0.526	0.005	0.075
3/8" (9 mm)	09L	mm	9.35	10.11	12.56	13.32	0.12	1.61
3/8" (9 mm)	09L	Inches	0.368	0.398	0.494	0.524	0.005	0.063
7/16" (10 mm)	716	mm	10.13	11.10	14.46	15.16	0.12	2.10
7/16" (10 mm)	716	Inches	0.399	0.437	0.569	0.597	0.005	0.083
1/2" (13 mm)	13L	mm	11.97	13.07	16.39	17.31	0.12	2.17
1/2" (13 mm)	13L	Inches	0.471	0.515	0.645	0.681	0.005	0.085
1/2" (13 mm)	012	mm	12.01	13.11	16.87	17.78	0.12	2.38
1/2" (13 mm)	012	Inches	0.473	0.516	0.664	0.700	0.005	0.094
5/8" (16 mm)	16L	mm	15.11	16.08	18.59	19.56	0.12	1.74
5/8" (16 mm)	16L	Inches	0.595	0.633	0.732	0.770	0.005	0.069
5/8" (16 mm)	058	mm	15.32	16.23	20.36	21.26	0.12	2.45
5/8" (16 mm)	058	Inches	0.603	0.639	0.802	0.837	0.005	0.099
5/8" (17 mm)	17F	mm	16.40	16.60	21.50	22.00	0.22	2.63
5/8" (17 mm)	17F	Inches	0.646	0.654	0.846	0.866	0.009	0.103
5/8" (17 mm)	17L	mm	16.25	17.15	20.42	21.32	0.12	2.09
5/8" (17 mm)	17L	Inches	0.640	0.675	0.804	0.839	0.005	0.082
5/8" (18 mm)	18L	mm	16.73	17.75	21.69	22.59	0.12	2.45
5/8" (18 mm)	18L	Inches	0.659	0.699	0.854	0.889	0.005	0.096
3/4" (19 mm)	034	mm	17.96	19.28	24.13	25.12	0.12	3.00
3/4" (19 mm)	034	Inches	0.707	0.759	0.950	0.989	0.005	0.118
3/4" (19 mm)	19L	mm	18.97	19.86	23.10	23.86	0.12	2.03
3/4" (19 mm)	19L	Inches	0.747	0.782	0.909	0.939	0.005	0.080
7/8" (22 mm)	078	mm	21.54	22.81	28.12	29.24	0.13	3.25
7/8" (22 mm)	078	Inches	0.848	0.898	1.107	1.151	0.005	0.128
1" (23 mm)	23L	mm	22.78	24.10	27.36	28.17	0.15	2.16
1" (23 mm)	23L	Inches	0.897	0.949	1.077	1.109	0.006	0.085
1" (25 mm)	25L	mm	25.20	26.52	31.66	32.88	0.15	3.21
1" (25 mm)	25L	Inches	0.992	1.044	1.246	1.294	0.006	0.126
1" (25 mm)	100	mm	25.91	27.16	31.78	33.13	0.15	2.96
1" (25 mm)	100	Inches	1.020	1.069	1.251	1.304	0.006	0.117
1 1/8" (29 mm)	118	mm	28.50	29.86	34.58	35.88	0.15	3.03
1 1/8" (29 mm)	118	Inches	1.122	1.176	1.361	1.413	0.006	0.119
1 1/4" (30 mm)	114	mm	30.45	31.93	36.73	38.10	0.15	3.11
1 1/4" (30 mm)	114	Inches	1.199	1.257	1.446	1.500	0.006	0.123
1 1/2" (40 mm)	112	mm	39.78	41.83	47.42	49.45	0.15	3.82
1 1/2" (40 mm)	112	Inches	1.566	1.647	1.867	1.947	0.006	0.150
2" (51 mm)	200	mm	50.01	51.77	58.04	60.66	0.28	4.23
2" (51 mm)	200	Inches	1.969	2.038	2.285	2.388	0.011	0.167
2 1/2" (64 mm)	212	mm	62.15	63.90	70.39	73.01	0.28	4.34
2 1/2" (64 mm)	212	Inches	2.447	2.516	2.771	2.874	0.011	0.171
3 1/2" (89 mm)	312	mm	88.41	90.41	97.00	100.00	0.28	4.55
3 1/2" (89 mm)	312	Inches	3.481	3.559	3.819	3.937	0.011	0.179

**Dimension "D" Cut-To-Length Specifications**

Less than or equal to 400mm or 15.75" +/- 10mm or 0.394"	Greater than 400mm or 15.75" +/- 2.5% of target length
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**Note:** (A) Product tolerances are general and are designed to encompass all available materials. Tighter tolerances may be available for a specific material.  
 (B) Product with an I.D. > 1.0" will not meet the std. cut length tolerances listed above. Special cut length tolerance will be given on a case to case basis.  
 All dimensions are in both Imperial and Metric. Do Not Scale Drawing.

						<b>Convuluted Tubing</b>	
ISO/TS 16949 & ISO 9001:2008 registered		<b>MATERIALS: N/A</b>		<b>FINISH: N/A</b>		<b>SCALE: N/A</b>	
INTERPRET GEOMETRIC TOLERANCES PER: N/A		<b>Tol.:</b> .XX --- .XXX ---		<b>ANGLES</b> +/-			
<b>APPROVAL: Janet Mann</b>		<b>APPROVAL: Neil Coleman</b>		<b>DATE: 04/06/11</b>			