



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	Good	Excellent

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

ND	TD-007		WSS-M4D933-A1 ES-XU5T-14A099-AA		MS-DB41 CPN 4059	D4066PA283	FMVSS 302	No	Good	Good	Good
NN	TD-022					ASTME 162 ASTME 662	See ASTM Flame Tests	No	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
NU	TD-012							Yes Note ⑥	Good	Good	Good

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	Good
RP	TD-011	M-2262-001			MS-DB532-B CPN-2796		No	Excellent	Good	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	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.
- ⑤ The "NN" Material Code is not available in sizes larger than 1 1/2" ID (Dia Code 112). This product has been tested and will meet the requirements of UL 94 V1 This product has not been certified yet by UL but Documentation is available showing test results complying to the UL test.
- ⑥ Based on our stabilizer supplier recommendation, the percentage used allows for a 3-5 Year weather able product.

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DRAWING#: DWCS-001

REV#: 24

Product Dimensions

Nominal ID Diameter	Dia. Code	Units	Dimension "A" ID		Dimension "B" OD		Dim. "C" Wall Min	Dim. (E) Corr Ht. Ref.
			Min	Max.	Min	Max.		
1/4"	014	mm	6.02	6.76	9.45	10.16	0.11	1.71
(6 mm)		Inches	0.237	0.266	0.372	0.400	0.004	0.067
1/4"	07L	mm	6.50	7.01	9.47	10.11	0.11	1.52
(7 mm)		Inches	0.256	0.276	0.373	0.398	0.004	0.060
3/8"	038	mm	8.66	9.65	12.59	13.36	0.12	1.91
(9 mm)		Inches	0.341	0.380	0.496	0.526	0.005	0.075
3/8"	09L	mm	9.35	10.11	12.56	13.32	0.12	1.61
(9 mm)		Inches	0.368	0.398	0.494	0.524	0.005	0.063
7/16"	716	mm	10.13	11.10	14.46	15.16	0.12	2.10
(10 mm)		Inches	0.399	0.437	0.569	0.597	0.005	0.083
1/2"	13L	mm	11.97	13.07	16.39	17.31	0.12	2.17
(13 mm)		Inches	0.471	0.515	0.645	0.681	0.005	0.085
1/2"	012	mm	12.01	13.11	16.87	17.78	0.12	2.38
(13 mm)		Inches	0.473	0.516	0.664	0.700	0.005	0.094
5/8"	16L	mm	15.11	16.08	18.59	19.56	0.12	1.74
(16 mm)		Inches	0.595	0.633	0.732	0.770	0.005	0.069
5/8"	058	mm	15.32	16.23	20.36	21.26	0.12	2.45
(16 mm)		Inches	0.603	0.639	0.802	0.837	0.005	0.099
5/8"	17F	mm	16.40	16.60	21.50	22.00	0.22	2.63
(17 mm)		Inches	0.646	0.654	0.846	0.866	0.009	0.103
5/8"	17L	mm	16.25	17.15	20.42	21.32	0.12	2.09
(17 mm)		Inches	0.640	0.675	0.804	0.839	0.005	0.082
5/8"	18L	mm	16.73	17.75	21.69	22.59	0.12	2.45
(18 mm)		Inches	0.659	0.699	0.854	0.889	0.005	0.096
3/4"	034	mm	17.96	19.28	24.13	25.12	0.12	3.00
(19 mm)		Inches	0.707	0.759	0.950	0.989	0.005	0.118
3/4"	19L	mm	18.97	19.86	23.10	23.86	0.12	2.03
(19 mm)		Inches	0.747	0.782	0.909	0.939	0.005	0.080
7/8"	078	mm	21.54	22.81	28.12	29.24	0.13	3.25
(22 mm)		Inches	0.848	0.898	1.107	1.151	0.005	0.128
1"	23L	mm	22.78	24.10	27.36	28.17	0.15	2.16
(23 mm)		Inches	0.897	0.949	1.077	1.109	0.006	0.085
1"	100	mm	25.91	27.16	31.78	33.13	0.15	2.96
(25 mm)		Inches	1.020	1.069	1.251	1.304	0.006	0.117
1 1/8"	118	mm	28.50	29.86	34.58	35.88	0.15	3.03
(29 mm)		Inches	1.122	1.176	1.361	1.413	0.006	0.119
1 1/4"	114	mm	30.45	31.93	36.73	38.10	0.15	3.11
(30 mm)		Inches	1.199	1.257	1.446	1.500	0.006	0.123
1 1/2"	112	mm	39.78	41.83	47.42	49.45	0.15	3.82
(40 mm)		Inches	1.566	1.647	1.867	1.947	0.006	0.150
2"	200	mm	50.01	51.77	58.04	60.66	0.28	4.23
(51 mm)		Inches	1.969	2.038	2.285	2.388	0.011	0.167
2 1/2"	212	mm	62.15	63.90	70.39	73.01	0.28	4.34
(64 mm)		Inches	2.447	2.516	2.771	2.874	0.011	0.171
3 1/2"	312	mm	88.41	90.41	97.00	100.00	0.28	4.55
(89 mm)		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.

						Convuluted Tubing	
ISO/TS 16949 & ISO 9001:2008 registered		MATERIALS: N/A		FINISH: N/A		SCALE: N/A	
INTERPRET GEOMETRIC TOLERANCES PER: N/A		Tol.: .XX --- .XXX ---		ANGLES +/-			
APPROVAL: Janet Mann		APPROVAL: Neil Coleman		DATE: 07/17/14			