



### Product Dimensions

Nominal ID Diameter	Dia. Code	Units	Dimension "A"		Dimension "B"		Dim. "C" Wall Min	Dim. (E) Corr Ht. Ref.
			ID Min	Max.	OD 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	8.341	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
7/16" (10 mm)	716	mm	0.368	0.398	0.494	0.524	0.005	0.063
1/2" (13 mm)	13L	mm	10.13	11.10	14.46	15.16	0.12	2.10
1/2" (13 mm)	13L	mm	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)	012	mm	0.471	0.515	0.645	0.681	0.005	0.085
5/8" (16 mm)	16L	mm	12.01	13.11	16.87	17.78	0.12	2.38
5/8" (16 mm)	16L	mm	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)	058	mm	0.595	0.633	0.732	0.770	0.005	0.069
5/8" (17 mm)	17F	mm	15.32	16.23	20.36	21.26	0.12	2.45
5/8" (17 mm)	17F	mm	0.603	0.639	0.802	0.837	0.005	0.099
5/8" (17 mm)	17L	mm	16.40	16.60	21.50	22.00	0.22	2.63
5/8" (17 mm)	17L	mm	0.646	0.654	0.846	0.866	0.009	0.103
5/8" (18 mm)	18L	mm	16.25	17.15	20.42	21.32	0.12	2.09
5/8" (18 mm)	18L	mm	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
3/4" (19 mm)	034	mm	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)	19L	mm	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	mm	0.747	0.782	0.909	0.939	0.005	0.080
7/8" (22 mm)	078	mm	18.97	19.86	23.10	23.86	0.12	2.03
7/8" (22 mm)	078	mm	21.54	22.81	28.12	29.24	0.13	3.25
1" (23 mm)	23L	mm	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	mm	0.897	0.949	1.077	1.109	0.006	0.085
1" (25 mm)	100	mm	22.78	24.10	27.36	28.17	0.15	2.16
1" (25 mm)	100	mm	25.91	27.16	31.78	33.13	0.15	2.96
1 1/8" (29 mm)	118	mm	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 1/4" (30 mm)	114	mm	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 1/2" (40 mm)	112	mm	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
2" (51 mm)	200	mm	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 1/2" (64 mm)	212	mm	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
3 1/2" (89 mm)	312	mm	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	mm	3.481	3.559	3.819	3.937	0.011	0.179

### 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	
<b>Polyethylene - * Continuous Operating Temperature -40 to +85C (-40 to +185F). *Short Term -40 to 93C (-40 to +200F)</b>											
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	Excellent
VE	TD-019						UL-94 V2	No	Good	Good	Excellent
V0	TD-014						UL-94 V0	No	Good	Good	Excellent
SE	TD-002		ESB-M4D152-A					No	Good	Good	Excellent
UC	TD-017							Yes	Good	Good	Excellent
<b>Nylon - * Continuous Operating Temperature -40 to +125C (-40 to +257F). *Short Term -40 to 149C (-40 to +300F)</b>											
ND	TD-007		WSS-M4D933-A1 ES-XU5T-14A099-AA		MS-DB41 CPN 4059	D4066PA283	FMVSS 302	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	Good	Good	Good
<b>Polypropylene - * Continuous Operating Temperature -40 to +125C (-40 to +257F). *Short Term -40 to 135C (-40 to +275F)</b>											
FP	TD-023						DR-006-SE	No	Good	Good	Excellent
PP	TD-009							No	Excellent	Good	Good
P0	TD-004						UL-94 V0	No	Good	Good	Excellent
RP	TD-011	M-2262-001			MS-DB532-B CPN-2796			No	Excellent	Good	Excellent
VP	TD-010						UL-94 V2	No	Good	Good	Excellent
<b>Polyester - *Continuous Operating Temperature -40 to +150C (-40 to +302F). *Short Term -40 to +170C (-40 to + 338F)</b>											
PT	TD-001	M-2373						No	Excellent	Excellent	Excellent

\* The "Continuous Operating Temperatures" for each material is considered to be a minimum of 3000 hrs at the stated temperatures. The "Short Term" Operating temperatures is considered to be minimum of 168Hrs @ the stated temperatures

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

**Products Listed are standard products. Unique sizes, materials & colours are available but are special order and subject to set-up & minimum quantities costs.**

#### Notes:

- The "V0" product is designated **non-Halogenated product**
- All UL & FMVSS 302 flame ratings are for the resin used to manufacture our product, not our end product. Testing of standard plaque not tubing.
- This product has been tested and will meet the requirements of UL 94 V0 or HB (as stated in the above chart). This product has not been certified yet By UL but Documentation is available showing test results complying to the UL test.
- Based on our "UV" stabilizer supplier recommendation, the percentage used allows for a 3-5 Year weather able product.
- This product is manufactured with a "UV inhibitor" additive. Drossbach does not claim or state any UV life or warranty for this product (see TDS-024)
- This product has limited "UV" protection created by increased amount of Carbon Black blended into it's composition (see TDS-017).

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#### 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:

- Product tolerances are general and are designed to encompass all available materials. Tighter tolerances may be available for a specific material.
- 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>	
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:	06/13/16

**DRAWING#: DWCS-001**

**REV#: 28**