



Some sizes of this product is also available with optional smooth wall cuffed ends see **DWCS-002**

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 ** See Note	Abrasion	

Polyethylene - * Continuous Operating Temperature -40 to +85C (-40 to +185F). *Short Term -40 to 93C (-40 to +200F)

DE	TD-013							No	Good	Good	Excellent
HV	TD-015							No	Good	Good	Good
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

Nylon - * Continuous Operating Temperature -40 to +125C (-40 to +257F). *Short Term -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	Excellent	Good
NP	TD-008	M-2170		GMP.PA6.003 GM 7001-M-PA6	MS-DB41 CPN-2785	D4066PA260	UL-94 HB FMVSS 302	No	Good	Excellent	Good
NU	TD-012							Yes Note	Good	Excellent	Good

Polypropylene - * Continuous Operating Temperature -40 to +125C (-40 to +257F). *Short Term -40 to 135C (-40 to +275F)

FP	TD-023						DR-006-SE	No	Good	Good	Good
PP	TD-009							No	Good	Good	Good
P0	TD-004						UL-94 V0	No	Good	Good	Good
RP	TD-011	M-2262-001			MS-DB532-B CPN-2796			No	Good	Good	Excellent
VP	TD-010						UL-94 V2	No	Good	Good	Good

Polyester - *Continuous Operating Temperature -40 to +150C (-40 to +302F). *Short Term -40 to +170C (-40 to + 338F)

PT	TD-001	M-2373						No	Good	Good	Excellent
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* 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

** Chemical Ratings are just general descriptive ratings. For more detailed Chemical Resistance information see **Drossbach's Chemical Resistance charts (CR-XXX series)**. These Documents can be cross referenced using Drossbach's Technical Data sheets listed above. Both documents (TD Sheets and Chemical Resistance charts) can be downloaded from our website www.drossbach.com or by request.

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

- Notes:**
- ① The "V0" product is designated **non-Halogenated product**
 - ② 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.
 - ③ 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.
 - ④ Based on our "UV" stabilizer supplier recommendation, the percentage used allows for a 3-5 Year weather able product.
 - ⑤ 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)
 - ⑥ 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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DRAWING#: DWCS-001

REV#: 29

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" (6 mm)	014	mm Inches	6.02 0.237	6.76 0.266	9.45 0.372	10.16 0.400	0.11 0.004	1.71 0.067
1/4" (7 mm)	07L	mm Inches	6.50 0.256	7.01 0.276	9.47 0.373	10.11 0.398	0.11 0.004	1.52 0.060
3/8" (9 mm)	038	mm Inches	8.66 0.341	9.65 0.380	12.59 0.496	13.36 0.526	0.12 0.005	1.91 0.075
3/8" (9 mm)	09L	mm Inches	9.35 0.368	10.11 0.398	12.56 0.494	13.32 0.524	0.12 0.005	1.61 0.063
7/16" (10 mm)	716	mm Inches	10.13 0.399	11.10 0.437	14.46 0.569	15.16 0.597	0.12 0.005	2.10 0.083
1/2" (13 mm)	13L	mm Inches	11.97 0.471	13.07 0.515	16.39 0.645	17.31 0.681	0.12 0.005	2.17 0.085
1/2" (13 mm)	012	mm Inches	12.01 0.473	13.11 0.516	16.87 0.664	17.78 0.700	0.12 0.005	2.38 0.094
5/8" (16 mm)	16L	mm Inches	15.11 0.595	16.08 0.633	18.59 0.732	19.56 0.770	0.12 0.005	1.74 0.069
5/8" (16 mm)	058	mm Inches	15.32 0.603	16.23 0.639	20.36 0.802	21.26 0.837	0.12 0.005	2.45 0.099
5/8" (17 mm)	17F	mm Inches	16.40 0.646	16.60 0.654	21.50 0.846	22.00 0.866	0.22 0.009	2.63 0.103
5/8" (17 mm)	17L	mm Inches	16.25 0.640	17.15 0.675	20.42 0.804	21.32 0.839	0.12 0.005	2.09 0.082
5/8" (18 mm)	18L	mm Inches	16.73 0.659	17.75 0.699	21.69 0.854	22.59 0.889	0.12 0.005	2.45 0.096
3/4" (19 mm)	034	mm Inches	17.96 0.707	19.28 0.759	24.13 0.950	25.12 0.989	0.12 0.005	3.00 0.118
3/4" (19 mm)	19L	mm Inches	18.97 0.747	19.86 0.782	23.10 0.909	23.86 0.939	0.12 0.005	2.03 0.080
7/8" (22 mm)	078	mm Inches	21.54 0.848	22.81 0.898	28.12 1.107	29.24 1.151	0.13 0.005	3.25 0.128
1" (23 mm)	23L	mm Inches	22.78 0.897	24.10 0.949	27.36 1.077	28.17 1.109	0.15 0.006	2.16 0.085
1" (25 mm)	100	mm Inches	25.91 1.020	27.16 1.069	31.78 1.251	33.13 1.304	0.15 0.006	2.96 0.117
1 1/8" (29 mm)	118	mm Inches	28.50 1.122	29.86 1.176	34.58 1.361	35.88 1.413	0.15 0.006	3.03 0.119
1 1/4" (30 mm)	114	mm Inches	30.45 1.199	31.93 1.257	36.73 1.446	38.10 1.500	0.15 0.006	3.11 0.123
1 1/2" (40 mm)	112	mm Inches	39.78 1.566	41.83 1.647	47.42 1.867	49.45 1.947	0.15 0.006	3.82 0.150
2" (51 mm)	200	mm Inches	50.01 1.969	51.77 2.038	58.04 2.285	60.66 2.388	0.28 0.011	4.23 0.167
2 1/2" (64 mm)	212	mm Inches	62.15 2.447	63.90 2.516	70.39 2.771	73.01 2.874	0.28 0.011	4.34 0.171
3 1/2" (89 mm)	312	mm Inches	88.41 3.481	90.41 3.559	97.00 3.819	100.00 3.937	0.28 0.011	4.55 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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Products Listed are standard products. Unique sizes, materials & colours are available but are special order and subject to set-up & minimum quantities costs.

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	
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: 08/16/17			