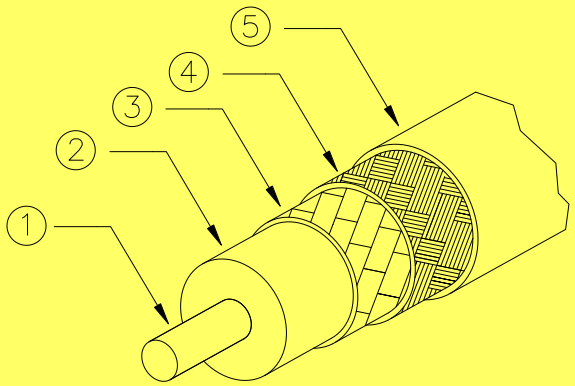
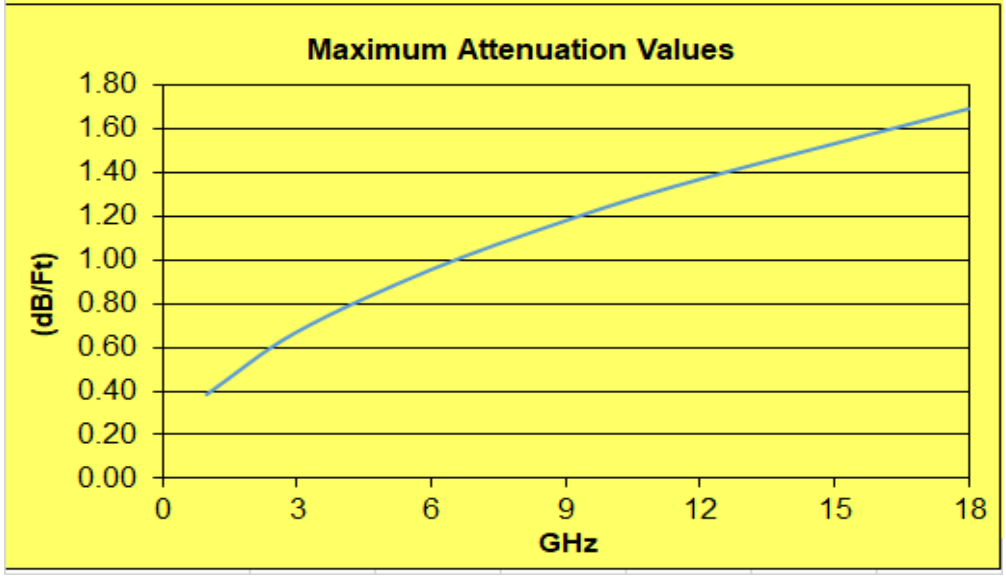


Part	Description	Diameter
1 – Center Conductor	Silver Plated Copper- Solid	0.011" +/- 0.001
2 – Dielectric	Microporous PTFE Tape	0.033" (nominal)
3 – Outer Conductor	Silver Plated Copper Flat Braid	0.039" (nominal)
4 – Shield	Silver Plated Copper Round Braid	0.049" (nominal)
5 – Jacket	Extruded FEP	0.060+/-.003"
	Extruded Polyurethane	NA

VSWR	**1.20 : 1**
Impedance	**50 +/- 2 ohms**
Velocity of Propagation	**75% Nominal**
Delay	**1.36ns/ft**
Capacitance	**27 pF**
Maximum Frequency	**18Ghz**

Freq(Ghz)	1	3	6	9	12	18
Attenuation(dB/Ft)	0.384	0.670	0.956	1.180	1.370	1.693



Note: +5% IL deviation is allowed at 8-18Ghz.

CABLE OVERVIEW

cinch CONNECTIVITY SOLUTIONS a bel group	PRODUCT LINE: SEMFLEX
	DESCRIPTION: SW060 WORK INSTRUCTIONS
DATE: 3/12/2012	
DRAWN BY: J. Vidallon	SIZE: A; RoHS: COMPLIANT; DOCUMENT: WI-SW060
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Braided cable

Braider setup

BRAIDER SET-UP	
BRAIDER	16 CARRIER STEEGER
SIZING DIE	**0.039"**
PICKS	**22 +/- 0.5**
GEAR SIZE	34/22
SPEED SETTING	100-150 ft/hr (typical)
TENSION SETTING	Green Spring
DIE HEIGHT	4.5-5.0" from the top of the carriers
TARGET OD	**0.037 - 0.041"**

***Excessive handling can deteriorate IL performance. No re-spooling of cable prior to RB.**

Notes:

1. Run 20ft length of cable through flat braid for first article sample and submit for electrical testing as per ETP70307 at initial setup and every new spool of core. Use connector PN: **SMA109PF**
2. Keep machine properly lubricated and clean tracks to prevent braid break.
3. All splices must be properly trimmed and bad spots marked.
4. Set and verify pay-off and take-up tension just enough to feed and wind cable properly. Too high tension can cause flat spot.
5. Check and ensure that all braids are on the guide rollers and are not twisted before running the braider.
6. Prevent lube and machine oil from coming in contact with the cable.
7. During setup, ensure that the tensions on each of the carriers are the same.
8. Allow 5-6 loops of cable on the capstan to get sufficient traction. Putting too much loops may cause flat spot.

FLAT BRAID PROCESS

MACHINE:
ST1 OR ST2

REF. DOC
MGW44
MGF86
MGF88

ITEM	PART NO.	DESCRIPTION
1	80155-01	.010" X 0.0015" SPC FLAT WIRE
2	80234	0.0108" SPC SOLID CONDUCTOR WITH PTFE MARLON CORE

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BRAIDER SET-UP	
BRAIDER	16 CARRIER STEEGER
SIZING DIE	0.086"
PICKS	19 +/- 1
GEAR SIZE	30/22
SPEED SETTING	100-150 ft/hr (typical)
TENSION SETTING	Green Spring
TARGET OD	0.048" – 0.050"
DIE HEIGHT	4.5-5" from the top of the carriers

Braider setup

***Excessive handling can deteriorate IL performance. No unnecessary re-spooling of cable prior to extrusion.**

Braided Cable

Notes:
1. Keep machine properly lubricated and clean tracks to prevent braid break.
2. All splices must be properly trimmed and bad spots marked.
3. Adjust take-up tension and traverse to prevent flattening of cable.
4. Check each braid to ensure that the ends are not mess-up (no leading or lagging end) before starting the machine. Leading or lagging braid end will cause frequent braid break. Check also when loading new bobbins.
5. Prevent lube and machine oil from coming in contact with the cable.
6. Ensure that the tensions on each of the carriers are the same.
7. Allow 5-6 loops of cable on the capstan to get sufficient traction. Putting too much loops may cause flat spot.

ROUND BRAID PROCESS

MACHINE:	REF. DOC
ST1 or ST2	MGW44

ITEM	PART NO.	DESCRIPTION
1	80156-01	43AWG SPC 5 ENDS

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- NO DASH – SLATE BLUE FEP JACKET

EXTRUDER SET-UP	
TIP	0.120 or 150
DIE	0.230 or 312
SCREW SPEED	~1 - 4 ref only
TRACTOR SPEED	Adjust to meet OD/jacket finish
COOLING TROUGH TEMP	120-140 deg F
MIN SPARK TESTER VOLTAGE	1.0 KV
JACKET OD	**0.057 - 0.063"**
COLOR MIX RATIO	40 OZ / 55 LBS
MARKING	SEMFLEX INC. SW060 YYMM WO

TEMPERATURE SETTING (deg F)

Zone 1	Zone 2	Zone 3
690	710	718
Body	**Tip/Die**	**Flange**
760	760	745

Note: 1. Temp settings are nominal and can be adjusted(+/-10 deg F) based upon the quality of the melt flow.
Adjust screw speed also if needed to get good melt quality.
2. Adjust tractor speed to attain target diameter.
3. Set jacket print on the Domino printer as per MGW64.
4. Refer to visual aid/samples provided for color match verification.
5. Refer to individual setup sheet created for more detailed setup and adjustments.

JACKET AND MARKING PROCESS

MACHINE:	REF. DOC
EXTRUDER LINE	MGW48
DOMINO PRINTER	MGW64
	MGF89

ITEM	PART NO.	DESCRIPTION
1	80013	Dupont FEP
2	80141	COLOR CONCENTRATE - DUSK

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A. ELECTRICAL TEST:

1. CUT A 20FT SAMPLE FOR EVERY 1000FT OF FINISHED CABLE AND PERFORM FINAL TEST AS PER ETP 70307.
2. SAVE ELECTRICAL DATA IN THE ELECTRICAL TEST FOLDER.

B. MECHNICAL TEST:

1. CUT 3PCS OF 1FT SECTION OF FINISH CABLE PER LOT.
2. DISSECT AND VISUALLY INSPECT 1 OF THE 3 SAMPLES TO VERIFY LOCATION OF EACH LAYER.
3. MEASURE EACH LAYER AND FILL IN CABLE ACCEPTANCE TEST SHEET BELOW.

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Semflex Connectivity Solutions

CABLE ACCEPTANCE TEST

CUSTOMER:		PO#:	
PART NUMBER:		WORK ORDER #:	
DATE:		QUANTITY:	

PARAMETER	REQUIREMENT	MEASUREMENT
CONDUCTOR OD		
CORE OD		
INNER SHIELD OD		
OUTER SHIELD OD		
JACKET OD		
JACKET COLOR & MARKING		
ELECTRICAL TEST		

INSPECTED BY:	
DATE:	

TESTING AND INSPECTION

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PACKAGING REQUIREMENTS:

1. PREPARE FOOTAGE SHEET (C-SHEET PER SPOOL).
2. ALL SHIPMENTS TO WASECA MUST INCLUDE A HARD COPY OF THE FINAL ELECTRICAL TEST, CABLE ACCEPTANCE TEST AND FOOTAGE SHEET.
3. ALL SALES ORDER SHIPMENTS MUST INCLUDE C-SHEETS ONLY UNLESS OTHERWISE REQ'D BY CUSTOMER.
4. VERIFY CUSTOMER PO/DRAWING FOR CONTINUOUS LENGTH AND PACKAGING REQ'T.

ADDITIONAL NOTES TO SHIPMENT TO ECM:

1.NO MORE THAN 250FT PER REEL.
2.IF THERE ARE TWO OR MORE LOT NUMBERS OF A CABLE IS BEING SHIPPED, THE LOTS MUST BE SPOOLED SEPARATELY.
3.INCLUDE CABLE ACCEPTANCE SHEET WITH ALL SHIPMENTS.

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REVISIONS		
DESCRIPTION	**DATE**	**BY**
Initial Release	3/12/2012	J.Vidallon
Replaced 80013 with 80259.	10/3/2012	J.Vidallon
Update FEP extrusion temperature setup	11/13/2012	J.Vidallon
Correction on center conductor OD from 0.012" to 0.011"	07/25/2013	J.Vidallon
Change FB picks from 19 to 22 to prevent VSWR deterioration at the downstream processes.	2/11/2015	J.Vidallon
Add notes on packaging for ECM	6/9/2015	J.Vidallon
Add no re-spooling req't prior to RB.Change 80259 to 80013 for easier extrusion setup.	6/19/2018	J.Vidallon
Correction on capacitance and delay	2/27/2019	J.Vidallon
Add notes to specify 5% allowance on IL specs.	4/29/2019	J.Vidallon

cinch CONNECTIVITY SOLUTIONS a bel group

DATE 3/12/2012

DRAWN BY J. Vidallon

REVISED 4/29/2019

PRODUCT LINE SEMFLEX

DESCRIPTION SW060 WORK INSTRUCTIONS

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