

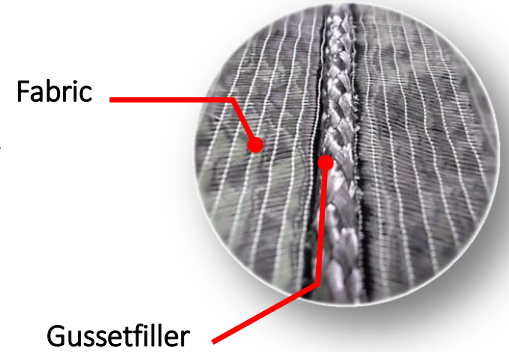
STANDARD PROGRAM

GUSSET FILLERS

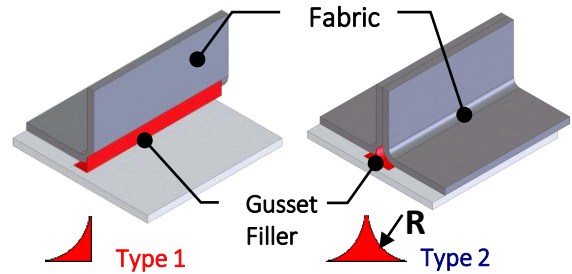
How to find a filler match for your application

Eurocarbon has developed a wide range of fillers. Each filler has a specific surface area in mm^2 at a fiber volume fraction of 50%.

Follow the following steps to define a suitable filler for your application.



STEP 1 Determine the radius type, 1 or 2.
For example $R=7$ type 1



STEP 2 Find your radius in the table and read the surface area in mm^2 associated with type 1 or 2.
Result is $10,52 \text{ mm}^2$

Area in mm^2		
Radius	Type 1	Type 2
3	1,93	3,86
4	3,43	6,87
5	5,37	10,73
6	7,73	15,45
7	10,52	21,03
8	13,73	27,47
9	17,38	34,77
10	21,46	42,92

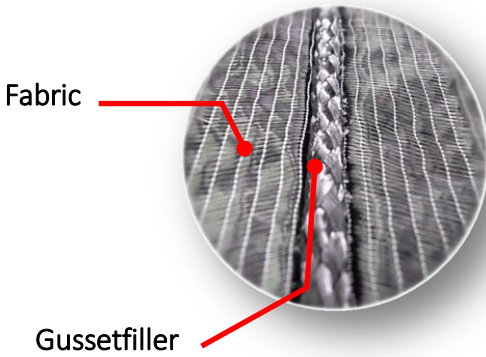
STEP 3 Look at the table for the cross section in mm^2 for the filler.
Find a close match between the calculated mm^2 and the mm^2 from the filler program.

The best match is Aero BIB 2003
Calculated = 10.52 mm^2 , match is 10.5 mm^2

Aero Filler	
Article	Cross-section area in mm^2 50% FV
AERO BIB 2001	3,6
AERO BIB 2002	7,1
AERO BIB 2003	10,5
AERO BIB 2004	14,4

STANDARD PROGRAM GUSSET FILLER UD

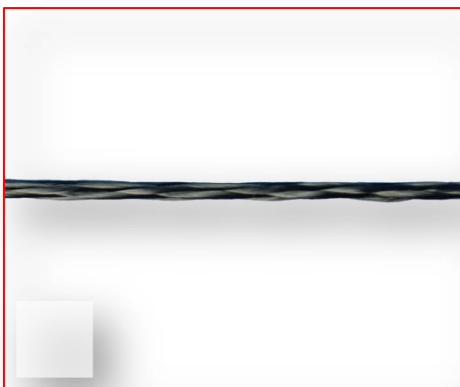
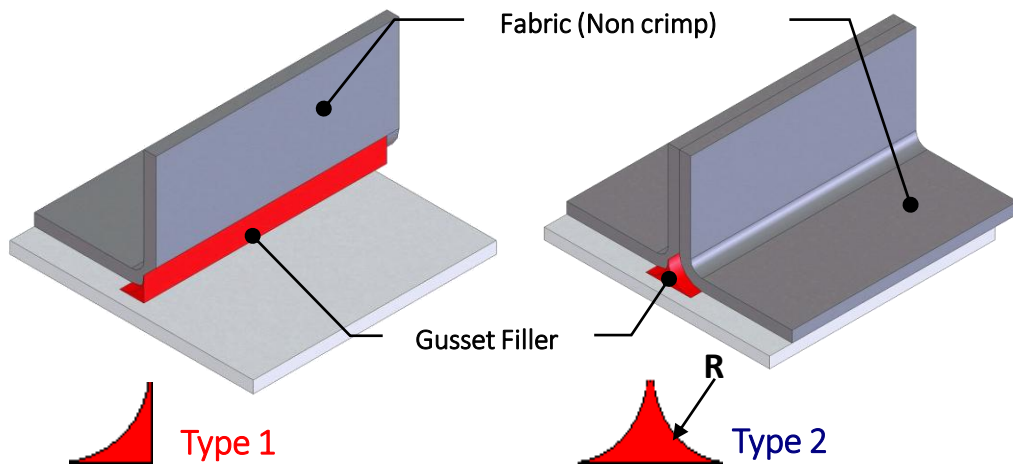
Gusset Filler Carbon UD and Glass Fiber UD



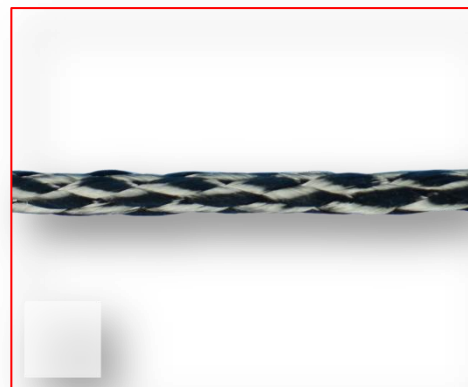
When fabrics are plied into shapes like type 1 and type 2 a hollow space is created. In injection systems this hollow space will create a runner where the resin will go through without respecting the resin front. If this behavior is not desired a filler is needed to 'plug' the created resin channel and to provide local reinforcement.

Advantages:

- Easy to form into triangular shape
- Permeability compatible with fabrics
- Constant architecture, compared to handmade fillers
- Time and money saving when it comes to blocking your undesired runners



L 008/04



L 008/10

STANDARD PROGRAM




GUSSET FILLER UD

Gusset Filler UD

Area in mm ²		
Radius	Type 1	Type 2
3	1,93	3,86
4	3,43	6,87
5	5,37	10,73
6	7,73	15,45
7	10,52	21,03
8	13,73	27,47
9	17,38	34,77
10	21,46	42,92

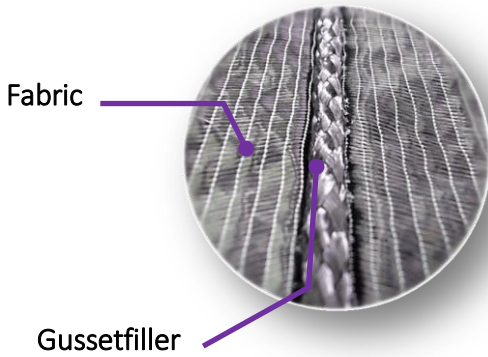


L 016/07

Gusset Filler UD			
Article	Diameter at $\pm 45^\circ$ in mm	Weight per m at $\pm 45^\circ$ (g/m)	Cross-section area in mm ² 50% FV
B 008/01	1,7	3,5	3,9
L 008/04 	2,5	4,4	4,9
L 008/05	3,0	5,3	5,88
L 008/06	3,5	7,7	8,56
L 008/07	3,8	10,1	11,2
L 008/08	4,1	12,6	14,0
L 008/09	4,4	15	16,6
L 008/10 	5,4	20,3	22,6
L 008/11	6,0	25,6	28,4
L 008/12	6,1	30	33,4
L 008/13	7,0	35,2	39,2
L 008/14	7,7	41	45,6
L 016/07 	10	51	56,6

STANDARD PROGRAM BRAIDED AERO FILLER

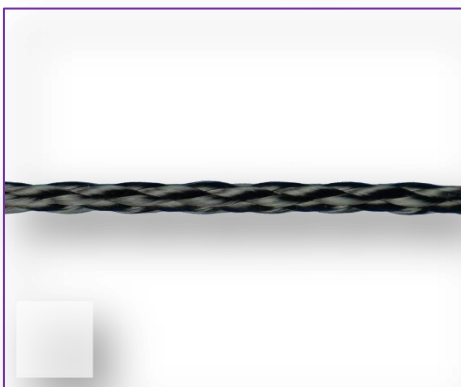
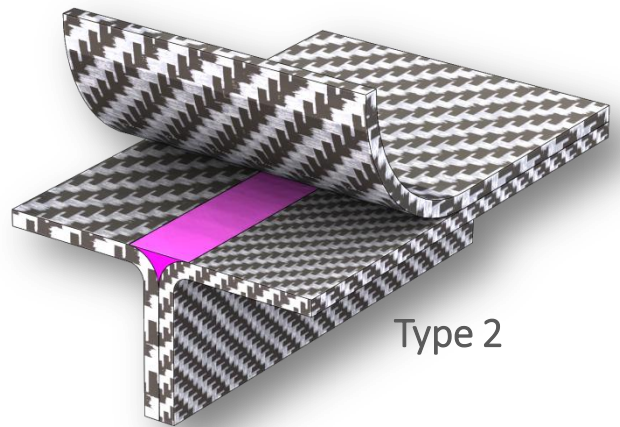
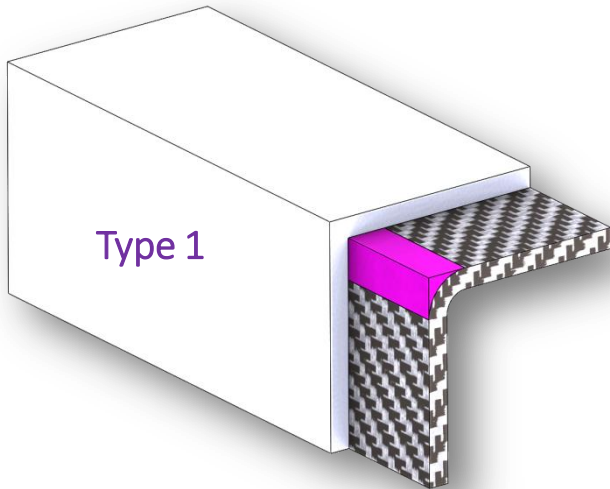
Standard Braided Aero Filler Program



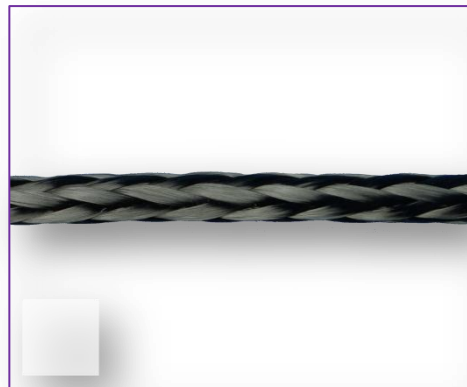
When fabrics are plied into shapes like type 1 and type 2 a hollow space is created. In injection systems this hollow space will create a runner where the resin will go through without respecting the resin front. If this behavior is not desired a filler is needed to 'plug' the created resin channel and to provide local reinforcement.

Advantages:

- Easy to form from original round shape into triangular shape
- Permeability compatible with fabrics
- Constant architecture, compared to handmade fillers
- Time saving compared to handmade fillers
- Made of Aero grade carbon fibers
- No UD content (no high stress concentrations)



AERO BIB 2002

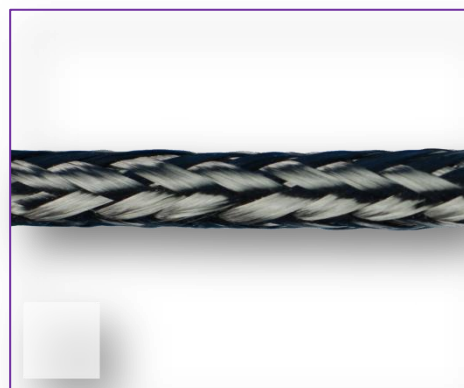


AERO BIB 2005

STANDARD PROGRAM BRAIDED AERO FILLER

Braided Aero Filler




Area in mm ²		
Radius	Type 1	Type 2
3	1,93	3,86
4	3,43	6,87
5	5,37	10,73
6	7,73	15,45
7	10,52	21,03
8	13,73	27,47
9	17,38	34,77
10	21,46	42,92
11	25,97	51,93
12	30,90	61,81
13	36,27	72,54
14	42,06	84,12



AERO BIB 2012



Certified for Aerospace Applications

Aero Filler			
Article	Diameter at $\pm 45^\circ$ in mm	Weight per m at $\pm 45^\circ$ (g/m)	Cross-section area in mm ² 50% FV
AERO BIB 2001	2	3,2	3,6
AERO BIB 2002 	3	6,4	7,1
AERO BIB 2003	3,5	9,5	10,5
AERO BIB 2004	4	13,0	14,4
AERO BIB 2005 	5	16,5	18,3
AERO BIB 2006	5,5	20	22,2
AERO BIB 2007	6,5	26	28,3
AERO BIB 2008	7,5	33	37,0
AERO BIB 2009	8	40	44,0
AERO BIB 2010	9	47	52,1
AERO BIB 2011	9,5	56	62,0
AERO BIB 2012 	10	69	77,0
AERO BIB 2013	11	84	93,0