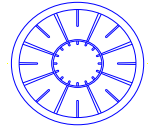


Datas Filling material

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Generally:

On our perforated **Hel-X**® carriers a circulating thread (helix) by inward showing lamellae marks the meaningful construction. It **decreases** flow shade, **increases** the effectiveness and **increases** the portion of the protected surface when used as floating filter.

Hel-X®₂ carriers have a clearly larger surface and stability.
A maximum of area (special the protected one) can be made by a flat helix. This is be done by the

Hel-X® flach carrier.

For holding very small bacterias in many pores, there is designed the **Hel-X**® Chip with the biggest area.

As surface the geometrical area was computed, vegetation increases these considerably, unfavorable flow decreases the opportunity of growth.

Measures, geometry and weights differs in Extruding, so the datas like shown are gully.

The protected area is the surface which cannot be scraped off by touching from other passing carriers.

At clusters and rod ware the protected area corresponds to the surface A because no abrasion takes place.

Identification:

We took some alphabetic characters to get a simple and clear designation as art.-no. Also effective are the ident-nos.

number = circa-Ø in mm

C = Cluster

HXC = **Hel-X**®

K = Kreuz (Cross)

S = Stange (rod)

Chip

L = lamella

HX = **Hel-X**®

H2X = **Hel-X**®₂

HXF = **Hel-X**®

flach

Possibilities:

Densities between **0,75** and **1,2** can be produced, not 0,8-0,9 for 10-20mm diameter.

If You will give orders big enough we can change some things without to change the price.

length for loose goods and for rods

pitch of helix for perforated carriers

Height of clusters but only in small range

high helix:

Sometimes some small snippets will be created. These have maximally 0.05% of volume or 0.02% weight portion

Recyclat:

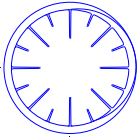
We produce in the density like the material is delivered

art. no.	ident-no. e.g. HDPE virg.	type	Ø/L mm	openings	bore mm x mm	A mm²/pc	pieces pcs/m³	A m²/m³	A prot. m²/m³	voids fraction for HDPE	weight kg/m³	A/weight m²/kg
HX, without helix, loose goods, poured Ø = length, weights are effective for PE density 0,95												
HX08	608/25-00	2	8	lengthwise	circle 4Ø	575	1.417.600	815	483	0,81	185	4,4
HX09	609/25-00	2	9/7	lengthwise	circle 4,8Ø	844	1.020.000	861	461	0,83	161	5,3
HX09KL	609/95-00	9	9/7	lengthwise	1/3 circle 3,3Ø	984	850.000	836	495	0,83	165	5,1

HX, high helix, loose goods, poured Ø = length, weights are effective for PE density 0,95												
HX16	616/25-04	2	16/10	all around	4,2x2,7	1.338	380.000	509	294	0,88	114	4,5
HX17KLL	617/75-03	7	17	all around, not cross	3,2x2,3	3.765	160.000	602	393	0,87	125	4,8
HX17KL	617/95-04	9	17/15	all around, not cross	4,8x2,8	2.874	152.000	437	264	0,88	118	3,7
HX18KK	618/85-04	8	18	all around, not cross	4,9x3,1	4.043	117.500	475	304	0,88	114	4,2
HX25	625/15-05	1	25	all around	5,1x3,5	6.124	51.000	312	226	0,92	71	4,4
HX25KLL	625/75-05	7	25	all around, not cross	5,1x3,5	6.802	53.000	360	273	0,90	91	4,0
HX35K	635/75-07	7	35	all around, not cross	6,0x5,5	14.045	17.000	239	185	0,94	56	4,3
HX38	638/15-07	1	38	all around	5,7x5,5	12.505	15.000	188	141	0,95	47	4,0
HX38K	638/75-07	1	38	all around	6,2x5,6	14.995	13.000	195	149	0,95	50	3,9
HX50	650/15-18	1	50	all around	8,9x14,6	22.087	6.700	148	125	0,95	51	2,9
HX55	655/25-18	2	55	all around	17,5x15,0	15.808	5.200	82	56	0,95	48	1,7
HX64	664/25-18	2	64	all around	15,2x14,6	23.608	3.100	73	56	0,96	40	1,8
HX65	665/15-17	1	65	all around	14,6x14,0	33.355	3.050	102	85	0,96	38	2,7
HX65K	665/75-17	7	65	all around, not cross	12,4x14,4	30.991	3.100	96	78	0,95	43	2,2
HX75	675/15-18	1	75	all around	11,7x15,3	40.843	1.920	78	66	0,96	36	2,2
HX75K	675/75-18	7	75	all around, not cross	13,1x15,0	37.529	2.225	84	69	0,96	41	2,0
HX76	676/15-18	1	75	all around	11,3x15,0	45.204	1.920	87	74	0,96	38	2,3

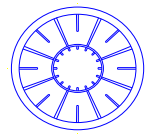
HXF, flat helix, loose goods, poured Ø = length, weights are effective for PE density 0,95												
HXF12KLL	612/75-06F	7F	12/12	all around, not cross	2,1x2,3	1.910	450.000	859	704	0,85	150	5,9
HXF14KLL	614/75-04F	7F	14/14	all around, not cross	2,8x2,0	2.579	297.600	767	644	0,84	151	5,1
HXF17KLL	617/75-06F	7F	17	all around, not cross	3,6x2,9	3.887	153.000	595	496	0,86	131	4,5
HXF18KK	618/85-06F	8F	18	all around, not cross	6,4x2,5	3.562	138.000	492	387	0,88	115	4,3
HXF25KLL	625/75-08F	7F	25	all around, not cross	5,5x3,3	7.492	56.000	420	342	0,91	90	4,7

HXC, Chip, loose goods, poured												
HXC14 0,5	520/09 0,5	C	14/1	pores	0,08-0,5	-	2.500.000	> 1500	~ 3000	-	170	8,8



Datas Filling material

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art. no.	Ident-no. e.g. HDPE virg.	type	Ø/L mm	openings	bore mm x mm	A mm²/pc	pieces pcs/m³	A m²/m³	A prot. m²/m³	voids fraction for HDPE	weight kg/m³	A/weight m²/kg
H2X, high helix, loose goods, poured, Ø = length, weights are effective for PE density 0,95												
H2X36	636/15-2-05	1	35/36	all around	5,2x4,8	14.529	16.480	239	188	0,90	59	4,0
H2X36schwer	636/15-2-05s	1	35/36	all around	5,4x4,0	15.439	16.480	254	205	0,89	64	4,0
H2X36-8/12schwer	636/15-2-8/12s	1	36/36	all around	5,6x10,7	13.011	16.480	214	186	0,90	60	3,6
H2X36glatt	636/15-2-05g	1	36/36	all around, not pipe	5,8x4,0	17.622	18.250	322	268	0,92	80	4,0

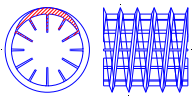
Rod ware, stacked, each length possible, weights are effective for PE density 0,95

art. no.	Ident-no. e.g. HDPE virg.	type	Ø mm	openings	bore mm x mm	A mm²/pc	rods pcs/m³	A m²/m³		voids fraction for HDPE	weight kg/m³	A/weight m²/kg
HX16 S200	616/25-04-200	2	16	all around	4,2x2,7	1.338	25.510	683		0,84	153	4,5
HX17KLL S200	617/75-03-200	7	17	all around, not cross	3,2x2,3	2.215	18.365	822		0,82	171	4,8
HX17KL S200	617/95-04-200	9	17	all around, not cross	4,8x2,8	1.916	19.052	766		0,78	207	3,7
HX18KK3 S200	618/85-03-200	8	18	all around, not cross	5,5x2,2	2.375	15.781	733		0,79	201	3,6
HX18KK4 S200	618/85-04-200	8	18	all around, not cross	4,9x3,1	2.246	17.715	775		0,80	187	4,2
HX25 S200	625/15-05-200	1	25	all around	5,1x3,5	2.450	8.000	376		0,91	90	4,4
HX25KLL S200	625/75-05-S200	7	25	all around, not cross	5,1x3,5	2.721	9.452	508		0,86	129	4,0
HX35K S300	635/75-07-300	7	35	all around, not cross	6,0x5,5	4.013	2.884	320		0,92	75	4,3
H2X36 S500	636/15-2-05-500	1	35/36	all around	5,5x4,1	4.036	1.953	396		0,90	98	4,0
H2X36schwer S500	636/15-2-05s-500	1	35/36	all around	5,4x4,0	4.289	1.953	419		0,89	106	4,0
H2X36 glatt S500	636/15-2-05g-500	1	36	all around, not cross	5,8x4,0	4.895	1.957	481		0,87	120	4,0
HX38 S300	638/15-07-300	1	38	all around	5,7x5,5	3.291	2.615	258		0,93	65	4,0
HX38K S300	638/75-07-300	1	38	all around	6,2x5,6	3.946	2.370	281		0,92	72	3,9
HX50 S600	650/15-18-600	1	50	all around	8,9x14,6	4.417	667	177		0,94	61	2,9
HX55 S600	655/25-18-600	2	55	all around	17,5x15,0	2.874	586	101		0,94	60	1,7
HX64 S600	664/25-18-600	2	64	all around	15,2x14,6	3.689	427	94		0,95	52	1,8
HX65 S600	665/15-17-600	1	65	all around	14,6x14,0	5.131	427	131		0,95	49	2,7
HX65K S600	665/75-17-600	7	65	all around, not cross	12,4x14,4	4.768	427	122		0,94	55	2,2
HX75 S600	675/15-18-600	1	75	all around	11,7x15,3	5.446	327	107		0,95	48	2,2
HX75K S600	675/75-18-600	7	75	all around, not cross	13,1x15,0	5.004	327	98		0,95	48	2,0
HX76 S600	676/15-18-600	1	75	all around	11,3x15,0	6.027	327	118		0,94	52	2,3

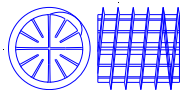
Surfaces and weights incl. more for welding

Clusters, welded, weights are effective for PE density 0,95

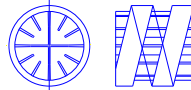
art. no.	Ident-no. e.g. HDPE virg.	type	Ø mm	openings	bore mm x mm	rows pcsxpcs	height mm	A m²/m³	cluster/m³ pcs./m³	voids fraction for HDPE	weight kg/m³	A/weight m²/kg
HX25 C500	625/1500-500	1	25	all around	5,1x3,5	20x20	500	380	8,00	0,90	92	4,3
HX38 C500	638/1544-500	1	38	all around	5,7x5,5	14x14	500	262	8,00	0,93	68	3,8
HX38K C500	638/7544-500	1	38	all around	6,2x5,6	14x14	500	285	7,26	0,92	74	3,8
HX50 C600	650/1500-600	1	50	all around	8,9x14,6	10x10	600	180	6,67	0,93	63	2,8
HX55 C600	655/2500-600	2	55	all around	17,5x15,0	10x10	600	104	5,87	0,93	62	1,7
HX64 C600	664/2588-600	2	64	all around	15,2x14,6	8x8	600	98	6,67	0,94	54	1,8
HX65 C600	665/1588-600	1	65	all around	14,6x14,0	8x8	600	135	6,67	0,95	52	2,6
HX65K C600	665/7588-600	7	65	all around, not cross	12,4x14,4	8x8	600	125	6,67	0,94	58	2,2
HX75 C600	675/1577-600	1	75	all around	11,7x15,3	7x7	600	110	6,67	0,95	51	2,2
HX75K C600	675/7577-600	7	75	all around, not cross	13,1x15,0	7x7	600	101	6,67	0,95	51	2,0
HX76 C600	676/1577-600	1	75	all around	11,3x15,0	7x7	600	121	6,67	0,94	55	2,2



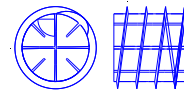
type 1 = different lengths of lamellas



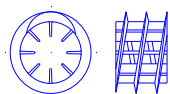
type 7 = cross with 2 lamellas between=KLL



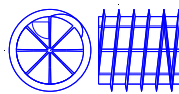
type 7F = type 7+flat helix



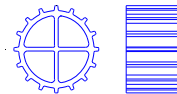
type 9 = cross with 1 lamella between=KL



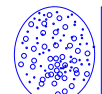
type 2 = length of lamellas are identic



type 8 = doublecross=KK



type 0 = cross without lamella=K



appendix C = Chip=HXc