

Take the best

# ■ FRANK Spiral Pipes



The solution for high  
quality standards

## FRANK Spiral Pipes

According to modern considerations, spiral pipes made of PE and PP play an important part in the construction of tanks and apparatuses as well as ventilation technology.

FRANK spiral pipes are high quality products and offer both contractor and customer the maximum possible security.

### Material

Spiral pipes are made of thermoplastics PE 100, PP-R, PP-B, and PP-H as well as of special materials PE-el, PPs, and PPs-el. The used materials stand out by a good processability and resistance against a variety of acids and bases as well as other media.



### Production

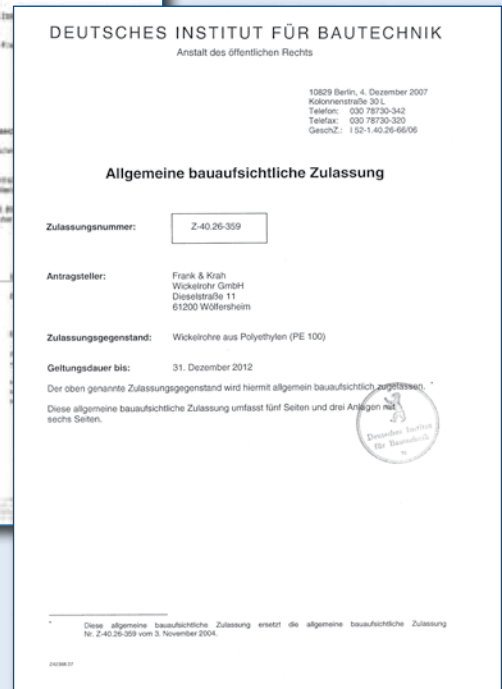
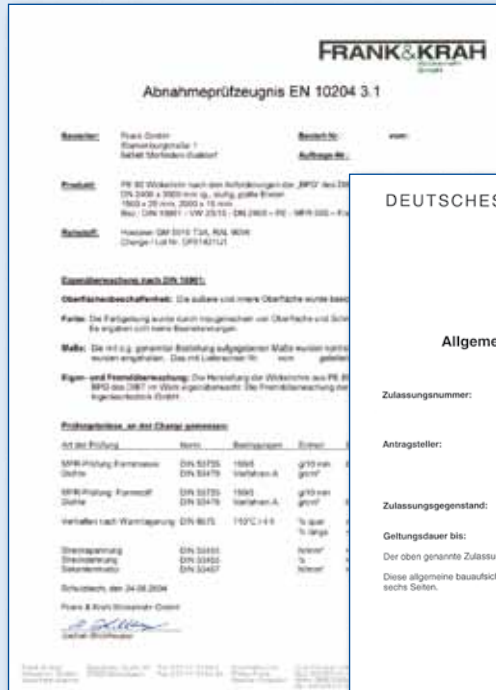
The pipes are made in a winding procedure according to DIN 16961. A homogeneous, plastified band is wound around a steel mandrel and connected by overlapping. The steel mandrel guarantees a constant inner diameter (DN) also with different wall thickness and loads. Wall thickness and graduation will be designed individually according to the operating conditions.

## DIBt Approval

The high standard of quality of our spiral pipes has been documented in the national technical approval of the German institute for building technology (DIBt). We are the first manufacturer of spiral pipes with such an approval:

PE 100: Z-40.26-359

PP-R: Z-40.26-343



## Quality

The development, production, and sale of the spiral pipes are carried out according to a certified quality management system. The products are tested regularly by an authorised testing institute.

In order to guarantee permanently excellent material characteristics, raw materials which have been approved by DIBt are used.

Furthermore, all test results are stated in a test certificate 3.1 according to EN 10204.

The certificates are available on request.



## Delivery program

Material: PE 100, PE-el,  
PP-R, PP-B, PP-H, PPs, PPs-el (co-extruded)  
Dimension: from DN 300 up to DN 3500  
Pipe length: max. 6000 mm  
Max. wall thickness: up to 100 mm, thicker walls on request

### Steps

Solid wall pipe: 1 mm steps from 5 mm up to max. wall thickness  
Tanks: min. 5 mm between steps

### Weights, wall thicknesses (s) from 5 mm - 100 mm

DN \ s	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	kg/m													
300	4,8	5,8	6,8	7,7	8,7	9,7	10,7	11,8	12,8	13,8	14,8	15,9	16,9	18,0
400	6,4	7,7	9,0	10,3	11,6	12,9	14,2	15,5	16,9	18,2	19,6	20,9	22,3	23,6
500	7,9	9,5	11,1	12,8	14,4	16,0	17,7	19,3	21,0	22,6	24,3	25,9	27,6	29,3
600	9,5	11,4	13,3	15,3	17,2	19,2	21,1	23,1	25,0	27,0	29,0	31,0	33,0	34,9
700	11,1	13,3	15,5	17,8	20,0	22,3	24,6	26,8	29,1	31,4	33,7	36,0	38,3	40,6
800	12,6	15,2	17,7	20,3	22,9	25,4	28,0	30,6	33,2	35,8	38,4	41,0	43,6	46,3
900	14,2	17,1	19,9	22,8	25,7	28,6	31,5	34,4	37,3	40,2	43,1	46,0	49,0	51,9
1000	15,8	19,0	22,1	25,3	28,5	31,7	34,9	38,2	41,4	44,6	47,8	51,1	54,3	57,6
1100	17,4	20,8	24,3	27,8	31,4	34,9	38,4	41,9	45,5	49,0	52,5	56,1	59,7	63,2
1200	18,9	22,7	26,5	30,4	34,2	38,0	41,8	45,7	49,5	53,4	57,3	61,1	65,0	68,9
1300	20,5	24,6	28,7	32,9	37,0	41,2	45,3	49,5	53,6	57,8	62,0	66,1	70,3	74,5
1400	22,1	26,5	30,9	35,4	39,8	44,3	48,8	53,2	57,7	62,2	66,7	71,2	75,7	80,2
1500	23,6	28,4	33,1	37,9	42,7	47,4	52,2	57,0	61,8	66,6	71,4	76,2	81,0	85,8
1600	25,2	30,3	35,3	40,4	45,5	50,6	55,7	60,8	65,9	71,0	76,1	81,2	86,4	91,5
1800	28,4	34,0	39,7	45,4	51,1	56,9	62,6	68,3	74,0	79,8	85,5	91,3	97,0	102,8
2000	31,5	37,8	44,1	50,5	56,8	63,1	69,5	75,9	82,2	88,6	95,0	101,3	107,7	114,1
2300	36,2	43,5	50,7	58,0	65,3	72,6	79,9	87,2	94,5	101,8	109,1	116,4	123,7	131,1
2400	37,8	45,4	52,9	60,5	68,1	75,7	83,3	90,9	98,5	106,2	113,8	121,4	129,1	136,7
2700	42,5	51,0	59,5	68,1	76,6	85,1	93,7	102,2	110,8	119,4	127,9	136,5	145,1	153,7
3000	47,2	56,7	66,1	75,6	85,1	94,6	104,1	113,5	123,1	132,6	142,1	151,6	161,1	170,7
3500	55,1	66,1	77,1	88,2	99,2	110,3	121,3	132,4	143,5	154,6	165,6	176,7	187,8	198,9

# Spiral Pipes

Other wall thicknesses and stepped pipes for tanks and apparatuses can be produced on request.

Integrated electro fusion socket is available for pipes from DN 300 up to DN 2400.



19	20	25	30	35	40	45	50	55	60	70	80	90	100
kg/m													
19,0	20,1	25,5	31,1	36,8	42,7	48,8	55,0	61,3	67,9	81,4	95,5	110,3	125,7
25,0	26,4	33,4	40,5	47,8	55,3	62,9	70,7	78,6	86,7	103,4	120,6	138,5	157,1
31,0	32,7	41,2	50,0	58,8	67,9	77,0	86,4	95,9	105,6	125,3	145,8	166,8	188,5
36,9	39,0	49,1	59,4	69,8	80,4	91,2	102,1	113,2	124,4	147,3	170,9	195,1	219,9
42,9	45,2	56,9	68,8	80,8	93,0	105,3	117,8	130,5	143,3	169,3	196,0	223,4	251,3
48,9	51,5	64,8	78,2	91,8	105,6	119,5	133,5	147,7	162,1	191,3	221,2	251,6	282,7
54,9	57,8	72,6	87,7	102,8	118,1	133,6	149,2	165,0	181,0	213,3	246,3	279,9	314,2
60,8	64,1	80,5	97,1	113,8	130,7	147,7	164,9	182,3	199,8	235,3	271,4	308,2	345,6
66,8	70,4	88,4	106,5	124,8	143,3	161,9	180,6	199,6	218,7	257,3	296,6	336,5	377,0
72,8	76,7	96,2	115,9	135,8	155,8	176,0	196,3	216,8	237,5	279,3	321,7	364,7	408,4
78,7	82,9	104,1	125,3	146,8	168,4	190,1	212,1	234,1	256,4	301,3	346,8	393,0	439,8
84,7	89,2	111,9	134,8	157,8	181,0	204,3	227,8	251,4	275,2	323,3	372,0	421,3	471,2
90,7	95,5	119,8	144,2	168,8	193,5	218,4	243,5	268,7	294,1	345,3	397,1	449,6	502,7
96,6	101,8	127,6	153,6	179,8	206,1	232,6	259,2	286,0	312,9	367,3	422,2	477,8	534,1
108,6	114,4	143,3	172,5	201,8	231,2	260,8	290,6	320,5	350,6	411,2	472,5	534,4	596,9
120,5	126,9	159,0	191,3	223,8	256,4	289,1	322,0	355,1	388,3	455,2	522,8	590,9	659,7
138,4	145,8	182,6	219,6	256,7	294,1	331,5	369,1	406,9	444,8	521,2	598,2	675,8	754,0
144,4	152,1	190,5	229,0	267,7	306,6	345,7	384,8	424,2	463,7	543,2	623,3	704,0	785,4
162,3	170,9	214,0	257,3	300,7	344,3	388,1	432,0	476,0	520,2	609,2	698,7	788,9	879,6
180,2	189,8	237,6	285,6	333,7	382,0	430,5	479,1	527,9	576,8	675,1	774,1	873,7	973,9
210,1	221,2	276,9	332,7	388,7	444,8	501,2	557,6	614,3	671,0	785,1	899,8	1.015,0	1.131,0

## Examples of application

### Ventilation pipelines made of spiral pipes



Available as profiled pipes for high negative pressures or as solid wall pipes. The construction will be carried out according to DIN 4741-1.

### Spiral pipes for tank and apparatus



Individual pipes for the production of special components and apparatuses.

Also available with double walls and leakage control.

### Storage container acc. to WHG § 19 I



Available with continuous or stepped wall thickness according to DVS 2205.

Pipes can be produced by co-extrusion with an inspection friendly light inner surface. In explosive areas both inner and outer surface can be produced from an electro-conductive material.



**Co-extruded inner surface  
made of special material**

One or double walled pressure pipes for transporting large amounts of air, water, or other media. Normally, such pipes are joined by heating element butt welding.



**Pressure pipes**

Integrated electro fusion sockets from DN 300 – DN 2400 for a quick and easy pipe connection by electro fusion welding.



**Integrated electro fusion socket**



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