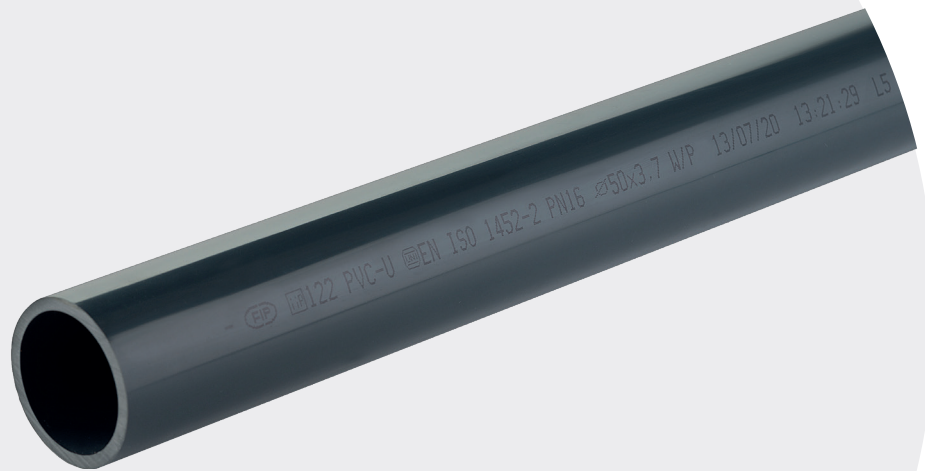


PIPE ISO-UNI

PRESSURE PIPE



PIPE ISO-UNI

Pipes under pressure with cold chemical weld jointing systems (solvent welding) using suitable solvent cement WELD-ON and primer-cleaner.

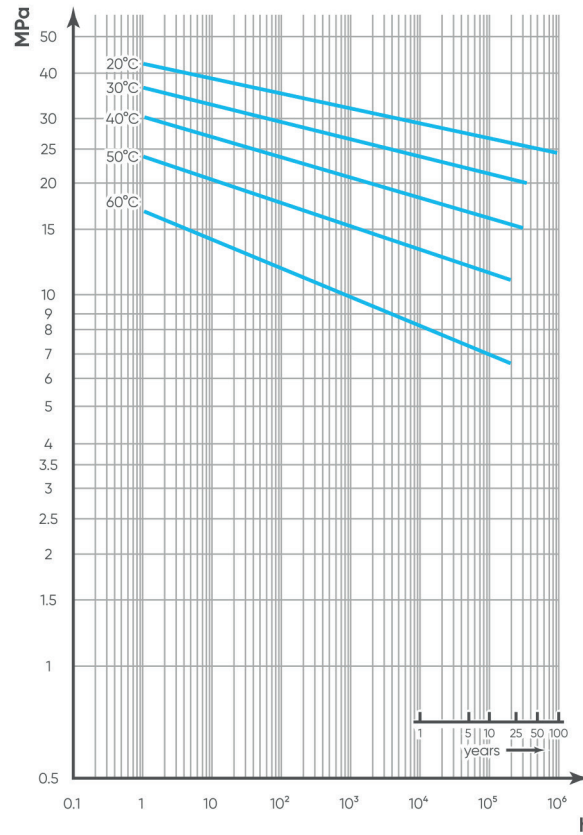
PRESSURE PIPE

Technical specifications	
Size range	d 16 ÷ d 315 (mm)
Nominal pressure	PN16 with water at 20° C PN10 with water at 20° C
Temperature range	0 °C ÷ 60 °C
Coupling standards	Solvent welding: EN ISO 15493, EN ISO 1452, DIN 8061/62
Reference standards	Construction criteria: EN ISO 15493, EN ISO 1452, DIN 8061/62 Test methods and requirements: EN ISO 15493, EN ISO 1452, DIN 8061/62 Installation criteria: DVS 2204, DVS 2221, UNI 11242 EN ISO 1452, DIN 8061/62
Material	PVC-U dark grey RAL 7011

TECHNICAL DATA

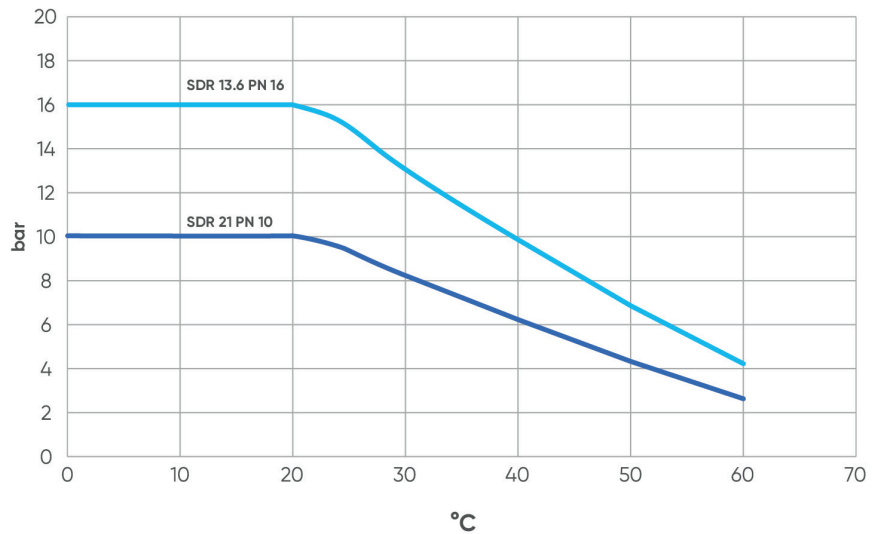
REGRESSION CURVE FOR PVC-U

Regression coefficients according to EN ISO 1452 and EN ISO 15493 for MRS (minimum required strength) values = 25 N/mm² (MPa) (classification PVC-U 250).



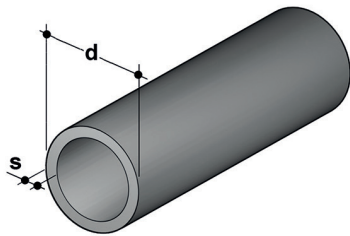
PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and non-hazardous fluids for which the material is classified as CHEMICALLY RESISTANT (life expectancy 25 years). In other cases, a reduction of the nominal pressure PN is required.



The information in this leaflet is provided in good faith. No liability will be accepted concerning technical data that is not directly covered by recognised international standards. FIP reserves the right to carry out any modification. Products must be installed and maintained by qualified personnel.

DIMENSIONS



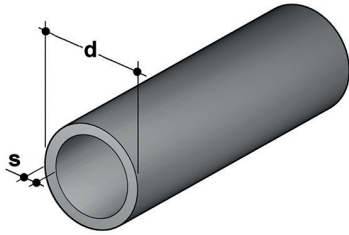
PRESSURE PIPE

PVC-U pressure pipe according to standard EN ISO 1452, dark gray RAL 7011, standard length 5m

d	S mm	kg/m	PN 16 SDR 11 - SDR 13,6 - SDR 17 Code
16	1,5	0,109	PIPEV11016
20	1,5	0,140	PIPEV13020
25	1,9	0,216	PIPEV13025
32	2,4	0,351	PIPEV13032
40	3,0	0,539	PIPEV13040
50	3,7	0,831	PIPEV13050
63	4,7	1,323	PIPEV13063
75	5,6	1,877	PIPEV13075
90	6,7	2,681	PIPEV13090
110	6,6	3,289	PIPEV17110
125	7,4	4,194	PIPEV17125
140	8,3	5,265	PIPEV17140
160	9,5	6,872	PIPEV17160

d	S mm	kg/m	PN 10 SDR 21 - SDR 26 Code
32	1,6	0,246	PIPEV21032
40	1,9	0,360	PIPEV21040
50	2,4	0,567	PIPEV21050
63	3,0	0,878	PIPEV21063
75	3,6	1,258	PIPEV21075
90	4,3	1,798	PIPEV21090
110	4,2	2,175	PIPEV26110
125	4,8	2,800	PIPEV26125
140	5,4	3,533	PIPEV26140
160	6,2	4,632	PIPEV26160
*180	6,9	5,774	PIPEV26180
200	7,7	7,160	PIPEV26200
225	8,6	8,996	PIPEV26225
*250	9,6	11,167	PIPEV26250
280	10,7	13,961	PIPEV26280
*315	12,1	17,817	PIPEV26315

* resale product



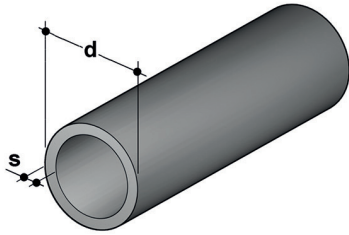
PRESSURE PIPE

PVC-U pressure pipe according to standards EN ISO 15493 and DIN 8061/8062, dark gray RAL 7011, standard length 5m

d	S mm	kg/m	PN 16 SDR 11 - SDR 13,6 Code
16	1,5	0,109	PIPEV11016
20	1,5	0,140	PIPEV13020
25	1,9	0,216	PIPEV13025
32	2,4	0,351	PIPEV13032
40	3,0	0,539	PIPEV13040
50	3,7	0,831	PIPEV13050
63	4,7	1,323	PIPEV13063
75	5,6	1,877	PIPEV13075
90	6,7	2,681	PIPEV13090
110	8,1	3,940	PIPEV13110
125	9,2	5,070	PIPEV13125
140	10,3	6,563	PIPEV13140
160	11,8	8,563	PIPEV13160

d	S mm	kg/m	PN10 SDR 21 Code
32	1,6	0,246	PIPEV21032
40	1,9	0,360	PIPEV21040
50	2,4	0,567	PIPEV21050
63	3	0,878	PIPEV21063
75	3,6	1,258	PIPEV21075
90	4,3	1,798	PIPEV21090
110	5,3	2,670	PIPEV21110
125	6	3,410	PIPEV21125
140	6,7	4,412	PIPEV21140
*160	7,7	5,780	PIPEV21160
*180	8,6	7,462	PIPEV21180
*200	9,6	8,990	PIPEV21200
225	10,8	11,356	PIPEV21225
250	11,9	13,892	PIPEV21250
280	13,4	17,529	PIPEV21280
*315	15	22,020	PIPEV21315

*resale product



PRESSURE PIPE

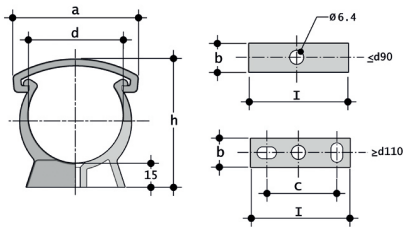
PVC-U pressure pipe according to standards NF and CSTB NF055, dark gray RAL 7011, standard length 5m

d	S mm	kg/m	PN 16 SDR 13,6 - SDR 15 - SDR 17 Code
32	2,4	0,351	PIPEV13032
40	3,0	0,539	PIPEV13040
50	3,7	0,831	PIPEV13050
63	4,7	1,323	PIPEV13063
75	5,6	1,877	PIPEV13075
90	6,7	2,681	PIPEV13090
110	8,1	3,940	PIPEV13110
*125	9,2	5,070	PIPEV13125
*140	9,3	5,860	PIPEV15140
*160	9,5	6,872	PIPEV17160

*resale product

d	S mm	kg/m	PN 10 SDR 21 - SDR 23 - SDR 26 Code
63	3,0	0,878	PIPEV21063
75	3,6	1,258	PIPEV21075
90	4,3	1,798	PIPEV21090
110	5,3	2,670	PIPEV21110
125	6,0	3,410	PIPEV21125
*140	6,1	3,940	PIPEV23140
160	6,2	4,632	PIPEV26160
*180	6,9	5,774	PIPEV26180
200	7,7	7,160	PIPEV26200
225	8,6	8,996	PIPEV26225
250	9,6	11,167	PIPEV26250
*315	12,1	17,817	PIPEV26315

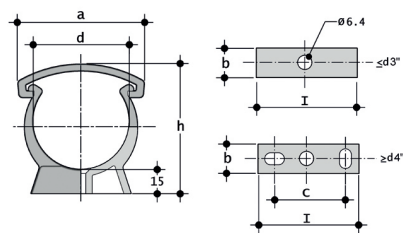
*resale product



ZIKM
Pipe clip for ISO-DIN pipes in PP

d	a	b	C	h	l	g	Code
16	26	18	-	33	16	5	ZIKM016
20	33	14	-	38	20	6,4	ZIKM020
25	41	14	-	44	25	7,8	ZIKM025
32	49	15	-	51	32	11,5	ZIKM032
40	58	16	-	60	40	15,7	ZIKM040
50	68	17	-	71	60	23,2	ZIKM050
63	83	18	-	84	63	28,8	ZIKM063
75	96	19	-	97	75	35,5	ZIKM075
90	113	20	-	113	90	52,4	ZIKM090
110	139	23	40	134	125	71	ZIKM110
140	177	27	70	167	155	149,5	ZIKM140
160	210	30	90	190	180	218,4	ZIKM160
180	237	33	100	211	200	293,6	ZIKM180

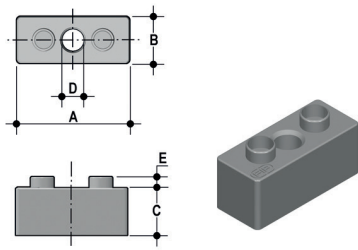
for pipe support systems, refer to guidelines DVS 2210-1 (Planning and execution - above-ground pipe systems)



ZAKM
Pipe clip for ASTM pipes in PP

d	a	b	C	h	l	g	Code
1/2"	33	14	-	39	20	7	ZAKM012
3/4"	41	14	-	45	25	7,8	ZAKM034
1"	49	15	-	52	32	11,7	ZAKM100
1 1/4"	58	16	-	61	40	16	ZAKM114
1 1/2"	68	17	-	67	50	17,9	ZAKM112
2"	83	18	-	80	63	29	ZAKM200
2 1/2"	96	19	-	96	75	36	ZAKM212
3"	118	20	-	110	90	52,3	ZAKM300
4"	140	25	60	135	140	74	ZAKM400
6"	197	30	90	196	180	188	ZAKM600

for pipe support systems, refer to guidelines DVS 2210-1 (Planning and execution - above-ground pipe systems)



DSM

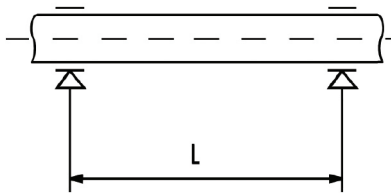
Distance plates in PP for ZIKM pipe clips

d	A	B	C	D	E	g	Pack	Master	Code
32	33	16	14	8	4	6,4	20	120	DSM032
40	41	17	17	8	4	8,2	10	80	DSM040
50	51	18	17	8	4	9,8	10	50	DSM050
63	64	19	22,5	8	4	13,4	10	40	DSM063
75	76	20	34,5	8	4	20,2	10	40	DSM075

for pipe support systems, refer to guidelines DVS 2210-1 (Planning and execution - above-ground pipe systems)

INSTALLATION

POSITIONING OF ZIKM AND ZAKM PIPE CLIPS



The installation of thermoplastic pipe systems requires the use of support clips to prevent flexing and the resulting mechanical stresses. The distance between the clips depends on the pipe material, SDR, surface temperature and the density of the conveyed fluid. Before installing the clips, check the distances reported in the table below, as provided for by guidelines DVS 2210-01 for water pipes.

Supporting PVC-U pipes conveying liquids of density 1 g/cm³ (water and other fluids of equal intensity).

For pipes of PN 16:

d mm	< 20° C	30° C	40° C	50° C	60° C
16	950	900	850	750	600
20	1100	1050	1000	900	700

For pipes of PN 10:

d mm	< 20° C	30° C	40° C	50° C	60° C
25	1200	1150	1050	950	750
32	1350	1300	1250	1100	900
40	1450	1400	1350	1250	1000
50	1600	1550	1500	1400	1150
63	1800	1750	1700	1550	1300
75	2000	1900	1850	1700	1450
90	2200	2100	2000	1850	1550
110	2400	2300	2250	2050	1750
125	2550	2450	2400	2200	1850
140	2700	2600	2500	2300	1950
160	2900	2800	2700	2500	2100
180	3100	2950	2850	2650	2200

For different SDR values, multiply the data in the table by the following factors:
 1.08 for SDR 13.6 / S6.3 / PN16 size range d25 - d400
 1.15 for SDR 11 / S5 / PN20 entire size range

Supporting PVC-U pipes conveying liquids of density other than 1 g/cm³

If the liquid being conveyed has a density other than 1 g/cm³, the distance L in the table must be multiplied by the factors in the table below.

Fluid density in g/cm ³	Support factor
1,25	0,96
1,50	0,92
< 0,01	1.42 for SDR 21 / S10 / PN10 1.30 for SDR 13.6 / S6.3 / PN16 1.20 for SDR 11 / S5 / PN20