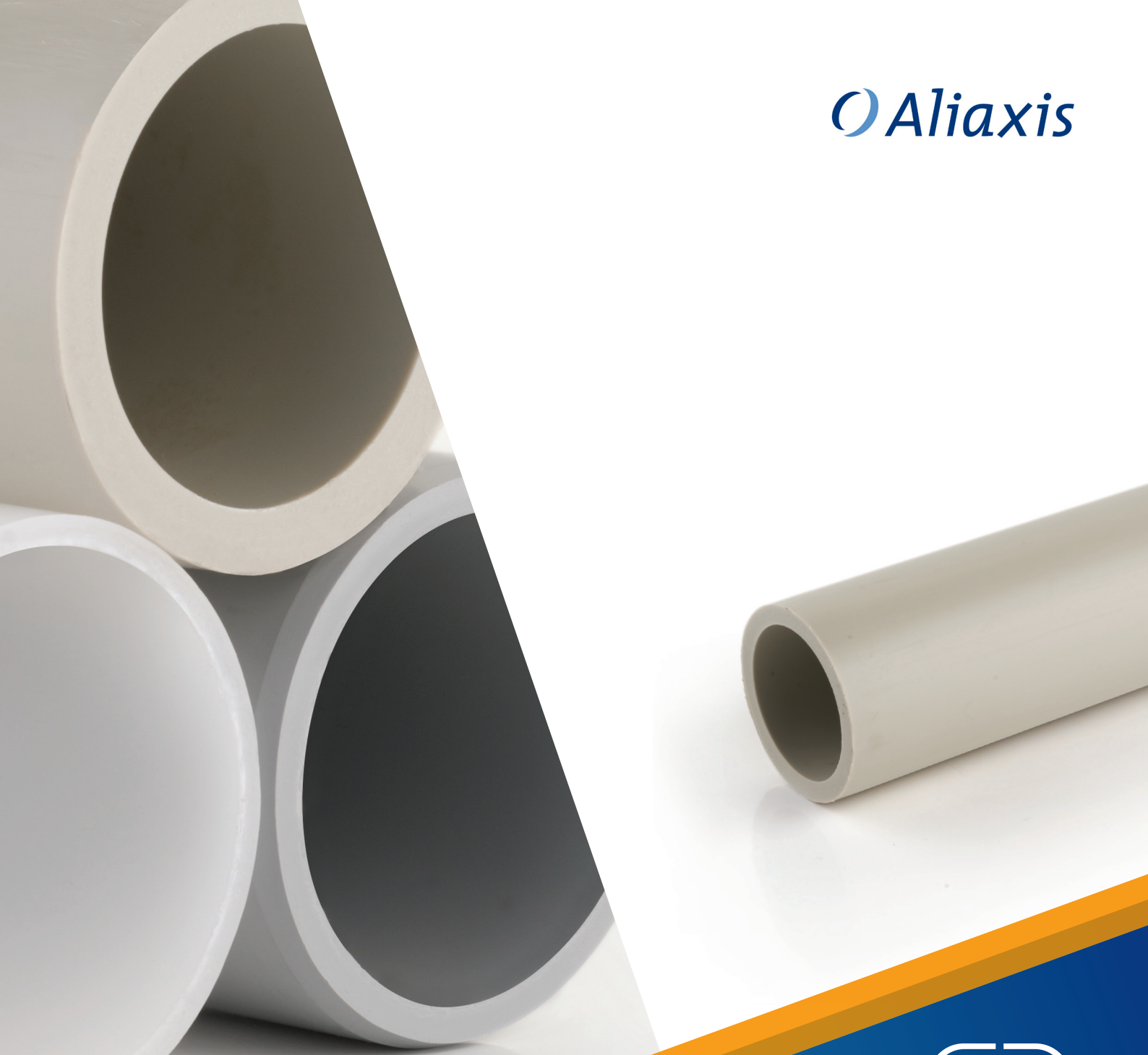




Aliaxis



ISO-UNI PIPE

PP-H

Pressure pipe

ISO-UNI PIPE

Pressure pipes for connection system by butt or socket welding.

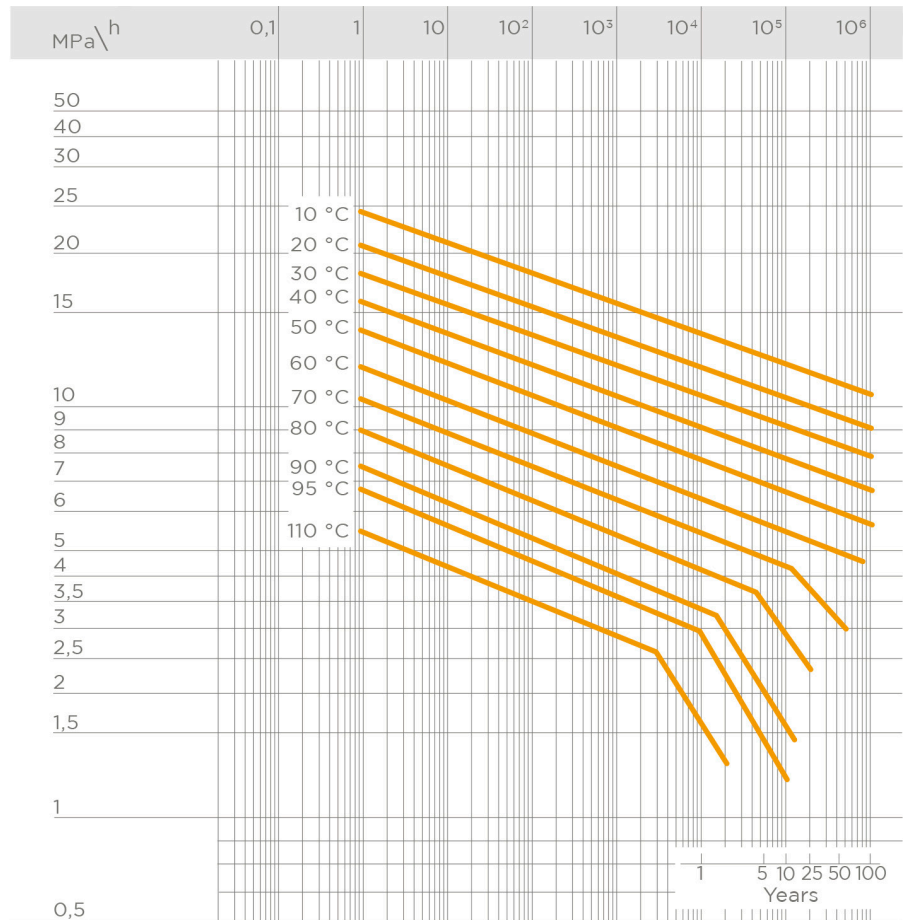
PRESSURE PIPE

| Technical specifications | |
|----------------------------|---|
| Size range | d 20 ÷ d 400 (mm) |
| Nominal pressure | SDR 17,6 (PN6) with water at 20 °C SDR 11 (PN10) with water at 20 °C |
| Temperature range | 0 °C ÷ 100 °C |
| Coupling standards | Welding: EN ISO 15494 Can be coupled to pipes according to EN ISO 15494 |
| Reference standards | Construction criteria: EN ISO 15494 Test methods and requirements: EN ISO 15494 Installation criteria: DVS 2202-1, DVS 2207-11, DVS 2208-1, UNI 11318, UNI 11397 |
| Material | PP-H |

TECHNICAL DATA

REGRESSION CURVES FOR PIPES IN PP-H

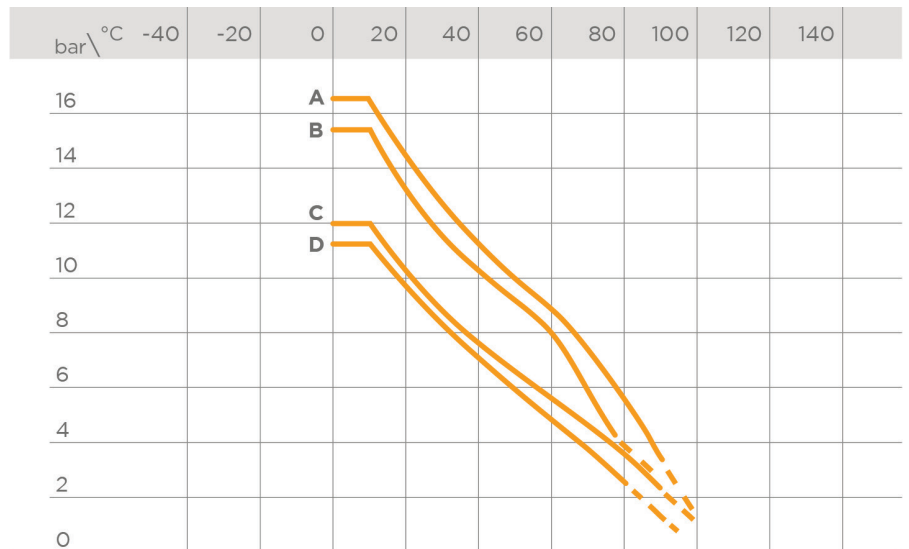
Regression coefficients in accordance with standards DIN and EN ISO for MRS = 10 N/mm²



PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required.

- A = SDR 11 ISO-S5 - 5 years
- B = SDR 11 ISO-S5 - 25 years
- C = SDR 17.6 ISO-S8.3 - 5 years
- D = SDR 17.6 ISO-S8.3 - 25 years



PRESSURE VARIATION ACCORDING TO TEMPERATURE

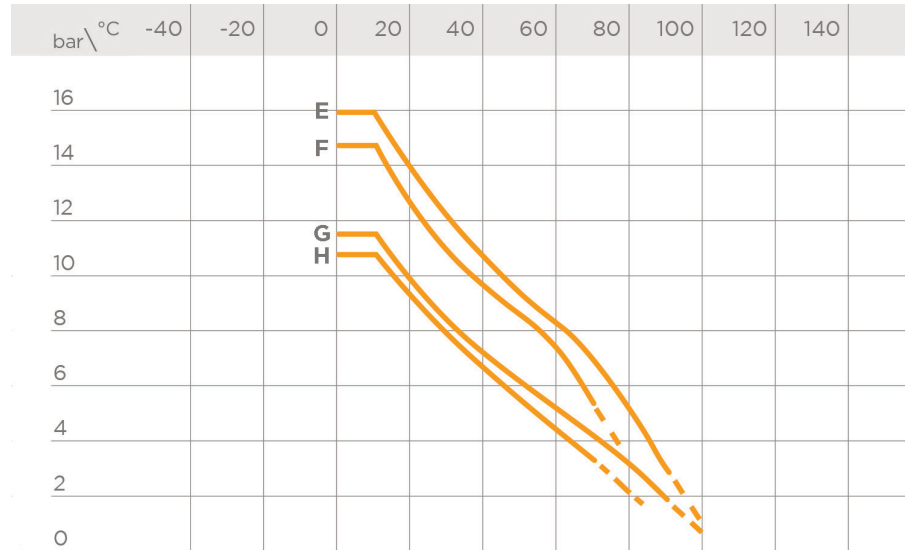
For water and non-hazardous fluids with regard to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required.

E = SDR 11 ISO-S5 - 10 years

F = SDR 11 ISO-S5 - 50 years

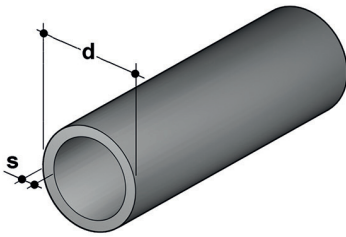
G = SDR 17.6 ISO-S8.3 - 10 years

H = SDR 17.6 ISO-S8.3 - 50 years



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

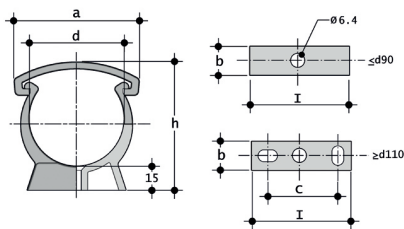


PIPE

PP-H pressure pipe according to DIN 8077/8078, Beige - RAL 7032, standard length 5m

| d | DN | S (mm) | kg/m | PN6 code SDR 17,6 - S 8,3 |
|-----|-----|--------|--------|------------------------------|
| 25 | 20 | 1,8 | 0,13 | PIPEM17025S |
| 32 | 25 | 1,9 | 0,17 | PIPEM17032S |
| 40 | 32 | 2,3 | 0,27 | PIPEM17040S |
| 50 | 40 | 2,9 | 0,42 | PIPEM17050S |
| 63 | 50 | 3,6 | 0,66 | PIPEM17063S |
| 75 | 65 | 4,3 | 0,94 | PIPEM17075S |
| 90 | 80 | 5,1 | 1,33 | PIPEM17090S |
| 110 | 100 | 6,3 | 1,99 | PIPEM17110S |
| 125 | 100 | 7,1 | 2,55 | PIPEM17125S |
| 140 | 125 | 8,0 | 3,20 | PIPEM17140S |
| 160 | 150 | 9,1 | 4,17 | PIPEM17160S |
| 180 | 150 | 10,2 | 5,25 | PIPEM17180S |
| 200 | 200 | 11,4 | 6,50 | PIPEM17200S |
| 225 | 200 | 12,8 | 8,19 | PIPEM17225S |
| 250 | 250 | 14,2 | 10,10 | PIPEM17250S |
| 280 | 250 | 15,9 | 12,60 | PIPEM17280S |
| 315 | 300 | 17,9 | 16,00 | PIPEM17315S |
| 355 | 350 | 20,1 | 20,30 | PIPEM17355S |
| 400 | 400 | 22,7 | 25,70 | PIPEM17400S |
| 450 | 500 | 25,5 | 32,50 | PIPEM17450S |
| 500 | 500 | 28,4 | 40,20 | PIPEM17500S |
| 560 | 600 | 31,7 | 50,30 | PIPEM17560S |
| 630 | 600 | 35,7 | 63,70 | PIPEM17630S |
| 710 | 700 | 40,2 | 80,80 | PIPEM17710S |
| 800 | 800 | 45,3 | 103,00 | PIPEM17800S |

| d | DN | S (mm) | kg/m | PN10 code SDR 11 - S 5 |
|-----|-----|--------|-------|---------------------------|
| 12 | 8 | 1,8 | 0,06 | PIPEM11012S |
| 16 | 12 | 1,8 | 0,08 | PIPEM11016S |
| 20 | 15 | 1,9 | 0,11 | PIPEM11020 |
| 25 | 20 | 2,3 | 0,16 | PIPEM11025 |
| 32 | 25 | 2,9 | 0,26 | PIPEM11032 |
| 40 | 32 | 3,7 | 0,41 | PIPEM11040 |
| 50 | 40 | 4,6 | 0,64 | PIPEM11050 |
| 63 | 50 | 5,8 | 1,01 | PIPEM11063 |
| 75 | 65 | 6,8 | 1,41 | PIPEM11075 |
| 90 | 80 | 8,2 | 2,03 | PIPEM11090 |
| 110 | 100 | 10,0 | 3,01 | PIPEM11110 |
| 125 | 100 | 11,4 | 3,91 | PIPEM11125 |
| 140 | 125 | 12,8 | 4,87 | PIPEM11140 |
| 160 | 150 | 14,6 | 6,38 | PIPEM11160 |
| 180 | 150 | 16,4 | 8,07 | PIPEM11180S |
| 200 | 200 | 18,2 | 10 | PIPEM11200S |
| 225 | 200 | 20,5 | 12,60 | PIPEM11225S |
| 250 | 250 | 22,7 | 15,50 | PIPEM11250S |
| 280 | 250 | 25,4 | 19,40 | PIPEM11280S |
| 315 | 300 | 28,6 | 24,60 | PIPEM11315S |
| 355 | 350 | 32,2 | 31,20 | PIPEM11355S |
| 400 | 400 | 36,3 | 40 | PIPEM11400S |
| 450 | 500 | 40,9 | 50,10 | PIPEM11450S |
| 500 | 500 | 45,9 | 61,80 | PIPEM11500S |



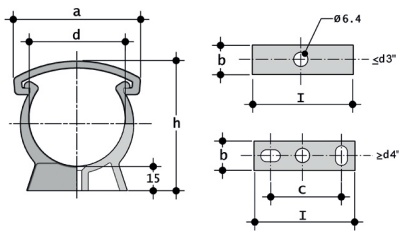
ZIKM

Pipe clip for ISO-DIN pipes in PP*

| d | a | b | C | h | I | Code |
|-----|-----|----|-----|-----|-----|---------|
| 16 | 26 | 18 | - | 33 | 16 | ZIKM016 |
| 20 | 33 | 14 | - | 38 | 20 | ZIKM020 |
| 25 | 41 | 14 | - | 44 | 25 | ZIKM025 |
| 32 | 49 | 15 | - | 51 | 32 | ZIKM032 |
| 40 | 58 | 16 | - | 60 | 40 | ZIKM040 |
| 50 | 68 | 17 | - | 71 | 60 | ZIKM050 |
| 63 | 83 | 18 | - | 84 | 63 | ZIKM063 |
| 75 | 96 | 19 | - | 97 | 75 | ZIKM075 |
| 90 | 113 | 20 | - | 113 | 90 | ZIKM090 |
| 110 | 139 | 23 | 40 | 134 | 125 | ZIKM110 |
| 125 | 158 | 25 | 60 | 151 | 140 | ZIKM125 |
| 140 | 177 | 27 | 70 | 167 | 155 | ZIKM140 |
| 160 | 210 | 30 | 90 | 190 | 180 | ZIKM160 |
| 180 | 237 | 33 | 100 | 211 | 200 | ZIKM180 |

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

**resale product

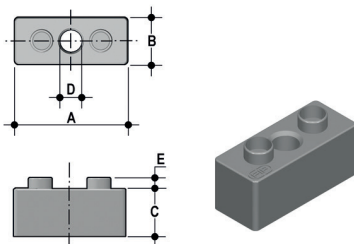


ZAKM

Pipe clip for ASTM pipes in PP*

| d | a | b | C | h | l | Code |
|----------|-----|----|----|-----|-----|---------|
| **3/8" | 26 | 13 | - | 34 | 16 | ZAKM038 |
| **1/2" | 33 | 14 | - | 39 | 20 | ZAKM012 |
| **3/4" | 41 | 14 | - | 45 | 25 | ZAKM034 |
| **1" | 49 | 15 | - | 52 | 32 | ZAKM100 |
| **1 1/4" | 58 | 16 | - | 61 | 40 | ZAKM114 |
| **1 1/2" | 68 | 17 | - | 67 | 50 | ZAKM112 |
| **2" | 83 | 18 | - | 80 | 63 | ZAKM200 |
| **2 1/2" | 96 | 19 | - | 96 | 75 | ZAKM212 |
| **3" | 118 | 20 | - | 110 | 90 | ZAKM300 |
| **4" | 140 | 25 | 60 | 135 | 140 | ZAKM400 |
| **6" | 197 | 30 | 90 | 196 | 180 | ZAKM600 |

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



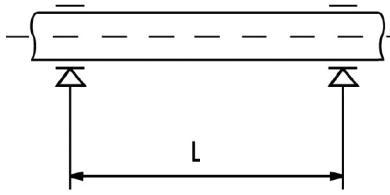
DSM

Distance plates in PP for ZIKM pipe clips*

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

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

INSTALLATION



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 PP-H pipes conveying liquids of density 1 g/cm³ (water and other fluids of equal intensity)

For pipes of SDR 11 / S 5 / PN 10:

| d mm | < 20 °C | 30 °C | 40 °C | 50 °C | 60 °C | 70 °C | 80 °C |
|------|---------|-------|-------|-------|-------|-------|-------|
| 16 | 650 | 625 | 600 | 575 | 550 | 525 | 500 |
| 20 | 700 | 675 | 650 | 625 | 600 | 575 | 550 |
| 25 | 800 | 775 | 750 | 725 | 700 | 675 | 650 |
| 32 | 950 | 925 | 900 | 875 | 850 | 800 | 750 |
| 40 | 1100 | 1075 | 1050 | 1000 | 950 | 925 | 875 |
| 50 | 1250 | 1225 | 1200 | 1150 | 1100 | 1050 | 1000 |
| 63 | 1450 | 1425 | 1400 | 1350 | 1300 | 1250 | 1200 |
| 75 | 1550 | 1500 | 1500 | 1400 | 1350 | 1300 | 1250 |
| 90 | 1650 | 1600 | 1700 | 1500 | 1450 | 1400 | 1350 |
| 110 | 1850 | 1800 | 1800 | 1700 | 1600 | 1500 | 1400 |
| 125 | 2000 | 1950 | 1900 | 1800 | 1700 | 1600 | 1500 |
| 140 | 2100 | 2050 | 2000 | 1900 | 1800 | 1700 | 1600 |
| 160 | 2250 | 2200 | 2100 | 2000 | 1900 | 1800 | 1700 |
| 180 | 2350 | 2300 | 2200 | 2100 | 2000 | 1900 | 1800 |
| 200 | 2500 | 2400 | 2300 | 2200 | 2100 | 2000 | 1900 |
| 225 | 2650 | 2550 | 2450 | 2350 | 2250 | 2150 | 2000 |
| 250 | 2800 | 2700 | 2600 | 2500 | 2400 | 2300 | 2150 |
| 280 | 2950 | 2850 | 2750 | 2650 | 2550 | 2450 | 2300 |
| 315 | 3150 | 3050 | 2950 | 2850 | 2700 | 2600 | 2450 |
| 355 | 3350 | 3250 | 3150 | 3000 | 2850 | 2750 | 2600 |
| 400 | 3550 | 3450 | 3350 | 3200 | 3050 | 2900 | 2750 |

* The distance L can be increased by 30% in case of vertical installation of the pipe
 For different SDR values, multiply the data in the table by the following factors:
 0.91 for SDR 17 and SDR 17.6

Supporting PP-H 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 must be multiplied by the factors in the table

| Fluid density in g/cm ³ | Support factor |
|------------------------------------|------------------------------------|
| 1,25 | 0,96 |
| 1,50 | 0,92 |
| 1,75 | 0,88 |
| 2,00 | 0,94 |
| < 0,01 | 1.30 for SDR11 1.47 for SDR17.6 |