



CV. BASUNJAYA ABADI SEAL  
SPECIAL RUBBER, SEALING AND CONSTRUCTION



**PTFE LINED PIPE FITTING**

## Straight pipe with linear thickness acc. to Series 2:

In bar abs

| Diameter DN     | At 120°C | At 230°C |
|-----------------|----------|----------|
| ≤ DN 80         | 0.00     | 0.00     |
| DN 100 - DN 200 | 0.00     | 0.10     |
| DN 250 - DN 400 | 0.00     | -        |

## Bends with linear thickness acc. to Series 2 :

In bar abs

| Diameter DN | At 20°C | At 100°C | At 150°C | At 200°C |
|-------------|---------|----------|----------|----------|
| ≤ DN 50     | 0.00    | 0.05     | 0.10     | 0.15     |
| DN 80       | 0.00    | 0.05     | 0.15     | 0.20     |
| DN 100      | 0.25    | 0.10     | 0.20     | 0.30     |
| DN 125      | 0.25    | 0.60     | 0.85     | 1.00     |
| DN 150      | 0.25    | 0.60     | 0.85     | 1.00     |
| DN 200      | 0.40    | 0.75     | 0.90     | 1.00     |
| DN 250      | 0.45    | 0.90     | 0.95     | 1.00     |
| DN 300      | 0.75    | 0.95     | 1.00     | 1.00     |
| DN 350      | 1.00    | 1.00     | 1.00     | 1.00     |
| DN 400      | 1.00    | 1.00     | 1.00     | 1.00     |
| DN 450      | 1.00    | 1.00     | 1.00     | 1.00     |
| DN 500      | 1.00    | 1.00     | 1.00     | 1.00     |

## T-piece with liner thickness acc. to Series 2 :

In bar abs

| Diameter DN | At 20°C | At 100°C | At 150°C | At 200°C |
|-------------|---------|----------|----------|----------|
| ≤ DN 50     | 0.00    | 0.00     | 0.00     | 0.00     |
| DN 80       | 0.00    | 0.00     | 0.10     | 0.20     |
| DN 100      | 0.00    | 0.15     | 0.25     | 0.30     |
| DN 125      | 0.25    | 0.60     | 0.85     | 1.00     |
| DN 150      | 0.25    | 0.60     | 0.85     | 1.00     |
| DN 200      | 0.40    | 0.75     | 0.90     | 1.00     |
| DN 250      | 0.45    | 0.80     | 0.90     | 1.00     |
| DN 300      | 0.75    | 0.90     | 1.00     | 1.00     |
| DN 350      | 1.00    | 1.00     | 1.00     | 1.00     |
| DN 400      | 1.00    | 1.00     | 1.00     | 1.00     |
| DN 450      | 1.00    | 1.00     | 1.00     | 1.00     |
| DN 500      | 1.00    | 1.00     | 1.00     | 1.00     |

## Thickness of PTFE in cas vacuum resistant pipes

| Diameter                 | DN 15 - DN 40 | DN 50 - DN 65 | DN 80 | DN 100 - DN 200 | DN 250 | DN 300 - DN 400 |
|--------------------------|---------------|---------------|-------|-----------------|--------|-----------------|
| Thickness of PTFE ( mm ) | 3.0           | 4.0           | 4.5   | 5.0             | 7.0    | 8.0             |

Machine parts, pipes, expansion joints etc. Based on Polyfluorethylene have all the advantages of the PTFE base material. These products have an excellent resistance againsts:

- Acids
- Caustic Soda
- Chlorides
- Sulvates
- Oxidants

Products out of PTFE have an excellent corrosion resistance, event at extreme temperatures between -190°C and +260°C

## Properties of PTFE

|                                                |                               |                                        |
|------------------------------------------------|-------------------------------|----------------------------------------|
| Density                                        | g/cm <sup>2</sup>             | 2.1 - 2.3                              |
| Continuous operation temperature               | °C                            | -190 / +260°C                          |
| Short time peek temperature                    | °C                            | +280°C                                 |
| Ultimate strain                                | %                             | 200 - 300                              |
| Hardness ( shore D )                           | Shore D                       | 55 - 70                                |
| Notched Impact Strength                        | Kg / cm <sup>2</sup>          | 13 - 15                                |
| Pressure resistance at 0.1% deformation        | Kg / cm <sup>2</sup>          | 580                                    |
| Deformation at 50°C and 85 kg /cm2 in 85 hours | %                             | 4 - 8                                  |
| Specific heat                                  | Cal / g / °C                  | 0.25                                   |
| Elongation coefficient                         | 10 <sup>-5</sup> / °C         | 8                                      |
| Thermo conductivity at 20°C                    | W/K m                         | 0.21                                   |
| Dielectric Constant                            | 50 / 10 <sup>6</sup> Hz       | 2.0 - 2.1                              |
| Arc resistant load at surface                  | Ω cm                          | >10 <sup>18</sup> / - 10 <sup>19</sup> |
| Tensile strength                               | Kg / cm <sup>2</sup>          | 200 - 300                              |
| Relative Humidity                              |                               | >10 <sup>13</sup>                      |
| Dielectric loss factor                         | 50 / 800 / 10 <sup>6</sup> Hz | <5.10 <sup>-4</sup>                    |
| Dielectric strength                            | KV / mm                       | 20 - 40                                |
| Water absorption                               | %                             | 0                                      |
| Friction coefficient                           | PTFE - PTFE dry               | 0.09 - 0.19                            |
| Friction coefficient                           | PTFE -PTFE greased            | 0.04 - 0.07                            |
| Friction coefficient                           | PTFE - Steel dry              | 0.07 - 0.11                            |
| Friction coefficient                           | PTFE -PTFE greased            | 0.02 - 0.06                            |
| Weather -worn after 3 years                    |                               | none                                   |

The PTFE / PFA lined piping consist out of several standard parts that are connected by flanges. Smaller pieces and pieces with a complicated shape are executed with a PFA ( injection molded ) inlay. The larger diameters are executed with a PTFE ( paste extruded ) inlay.

The standard dimensions are DN 15 to DN 500 for DIN EN pipes and 1/2" to 20" for ANSI pipes.

Upon request we can supply larger dimensions or special shaped pipe parts.

### PTFE LINED PIPE SPOOL

One fixed ( F ) and one loose ( L ) flange.

**EN 1092 - 1 PN 10, PN 16**

**ANSI 150lbs, 300lbs**



**DN 15 -  
DN 500**

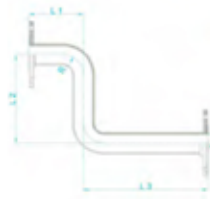
Standard length depending on the diameter and maximal 6000 mm.

### PTFE LINED BENDED PIPE SPOOL

One fixed ( F ) and one loose ( L ) flange.

**EN 1092 - 1 PN 10, PN 16**

**ANSI 150 lbs, 300 lbs**



**DN 25 -  
DN 100**

The bended pipe spools are only available in a limited number of diameters and dimensions.

### PTFE LINED BENDS 30°

Both flanges are fixed ( F ).

**EN 1092 - 1 PN 10, PN 16**

**ANSI 150 lbs, 300 lbs**



**DN 15 -  
DN 500**

### PTFE LINED BENDS 45°

Both flanges are fixed ( F ).

**EN 1092 - 1 PN 10, PN 16**

**ANSI 150 lbs, 300 lbs**



**DN 15 -  
DN 500**

## PTFE LINED BENDS 60°

Both flanges are fixed ( F ).  
EN 1092 - 1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs



DN 15 -  
DN 500

## PTFE LINED BENDS 90°

Both flanges are fixed ( F ).  
EN 1092 - 1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

Form 1



DN 15 -  
DN 100

## PTFE LINED BENDS 90°

Both flanges are fixed ( F ).  
EN 1092 - 1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

Form 2



DN 15 -  
DN 100

## PTFE LINED EQUAL TEE

All flanges are fixed ( F ).  
EN 1092 - 1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

PTFE lined

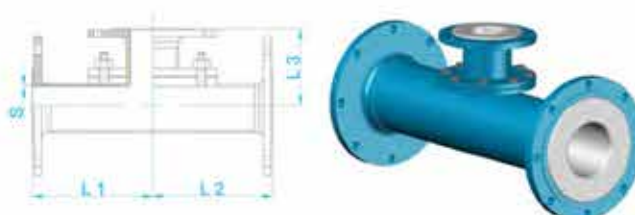


DN 125 -  
DN 100

## PTFE LINED REDUCED TEE

All flanges are fixed ( F ).  
EN 1092 - 1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

PTFE lined



DN 125 -  
DN 100

### PFA LINED EQUAL CROSS

All flanges are fixed ( F ).  
EN 1092 -1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

PFA lined



**DN 15 -  
DN 100**

### PTFE LINED EQUAL CROSS

All flanges are fixed ( F ).  
EN 1092 -1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

PTFE lined



**DN 125 -  
DN 500**

### PFA LINED REDUCED CROSS

All flanges are fixed ( F ).  
EN 1092 -1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

PFA lined



**DN 15 -  
DN 100**

### PTFE LINED REDUCED CROSS

All flanges are fixed ( F ).  
EN 1092 -1 PN 10, PN 16  
ANSI 150 lbs, 300 lbs

PTFE lined



**DN 125 -  
DN 500**

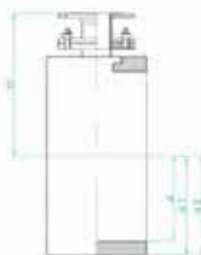
## PTFE LINED INSTRUMENT TEE

To be clamped between flanges.

EN 1092 -1 PN 10, PN 16

ANSI 150lbs, 300lbs

PTFE lined Style 3



DN 125 -  
DN 500

## PTFE LINED SPACER

To be clamped between flanges

EN 1092 -1 PN 10, PN 16

ANSI 150lbs, 300lbs

PTFE lined Style 2



DN 15 -  
DN 400

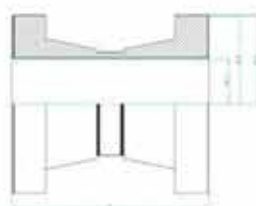
## PTFE LINED REDUCED SPACER

To be clamped between flanges

EN 1092 -1 PN 10, PN 16

ANSI 150lbs, 300lbs

PTFE lined Style 3



DN 15 -  
DN 400

**BAS**  
CV. BASUNJAYA ABADI SEAL

