



TPSX-I2® Calsil Insert

Product

- TPSX-I2® Calsil Insert is fabricated from filter pressed, water resistant calcium silicate (calsil) with a factory laminated All Service Jacket (ASJ+) vapor retarder and a Self Sealing Lap (SSL) strip along the longitudinal joint.
- Strongest available preformed pipe insulation provides over 200 psi compressive strength.
- Used for process piping from 0°F to 1200°F.
- See current TPSX-I2 Data Sheet for full physical property and compliance listings.
- Must be used in conjunction with a curved metal saddle (sold separately) between the structural hanger and the insert to prevent damage.
- TPSX-I2 is the only calsil insulation manufactured in a full range of actual copper tubing sizes.



Standard 12" & 18" Long Inserts - Custom Lengths Available

| Iron Pipe Size | Max Load (lbs.) | | RECOMMENDED GAUGE OF TPS METAL SHIELD | | | | | Copper Tubing Size |
|----------------------|-----------------|---------------|---------------------------------------|--------|----|--------|----|-----------------------|
| | Flat Surface | Clevis Hanger | Insulation Thickness | | | | | |
| | | | 1" | 1 1/2" | 2" | 2 1/2" | 3" | |
| 3/8 | 100 | 120 | 24 | 24 | 24 | 24 | 24 | 5/8 |
| 1/2 | 100 | 120 | 24 | 24 | 24 | 24 | 24 | 7/8 |
| 3/4 | 110 | 140 | 24 | 24 | 24 | 24 | 24 | 1 1/8 |
| 1 | 120 | 160 | 24 | 24 | 24 | 24 | 24 | 1 3/8 |
| 1 1/4 | 130 | 200 | 22 | 22 | 22 | 22 | 22 | 1 5/8 |
| 1 1/2 | 140 | 250 | 22 | 22 | 22 | 22 | 22 | XX |
| 2 | 150 | 300 | 22 | 22 | 22 | 22 | 22 | 2 1/8 |
| 2 1/2 | 200 | 350 | 20 | 20 | 20 | 20 | 20 | 2 5/8 |
| 3 | 225 | 400 | 20 | 20 | 20 | 20 | 20 | 3 1/8 |
| 3 1/2 | 250 | 500 | 20 | 20 | 20 | 20 | 20 | XX |
| 4 | 300 | 600 | 20 | 18 | 20 | 20 | 20 | 4 1/8 |
| 5 | 350 | 750 | 18 | 18 | 18 | 18 | 18 | XX |
| 6 | 400 | 900 | 18 | 18 | 18 | 18 | 18 | 6 1/8 |
| 8 | 550 | 950 | 18 | 18 | 18 | 18 | 18 | XX |
| 10 | 850 | 1200 | 16 | 16 | 16 | 16 | 16 | XX |
| 12 | 1200 | 1500 | 16 | 16 | 16 | 16 | 16 | XX |

Technical Discussion

- "ANSI/MSS-SP 58" discusses protections saddles and shields. Section 7.6.3 states: "When used **without** high compressive strength inserts...shields shall be in accordance with Table A3."
- However, many engineers overlook general note #1 under Table A3: "The listed spacings and shield lengths are based on insulation with a compressive strength of 15 psi."
- The most commonly specified pipe insulation in commercial buildings is fiberglass which provides virtually no compressive resistance (<1 psi); and therefore should not be used in conjunction with metal shields. TPS recommends high strength inserts at all structural supports regardless of the pipe diameter.
- Section 7.6.5 states, "When pipe covering protection shields are used with high compressive strength inserts, the shield and the thickness shall be appropriate for the compressive strength of the insert material." This axiom provides an opportunity to reduce the gauge, length and cost of metal shields.
- Please contact TPS to discuss alternatives to antiquated practices such as field notching pipe cover with wood blocks that will reduce installation time, field labor costs and improve system performance.

Standard 12" & 18" Long Inserts - Custom Lengths Available

| Full Carton Quantities (Standard Products): TPSX-12™ Calsil Insert | | | |
|--|--------------|------------------|--------------|
| Pipe Size | 1" thickness | 1 1/2" thickness | 2" thickness |
| 5/8" | 56 | 42 | 25 |
| 1/2" | 56 | 30 | 16 |
| 3/4" | 56 | 30 | 16 |
| 1" | 36 | 25 | 16 |
| 1 1/4" | 36 | 20 | 16 |
| 1 1/2" | 30 | 20 | 10 |
| 2 1/8" | 30 | 20 | 10 |
| 2" | 25 | 16 | 10 |
| 2 5/8" | 25 | 16 | 10 |
| 2 1/2" | 20 | 10 | 9 |
| 3 1/8" | 20 | 10 | 9 |
| 3" | 16 | 10 | 9 |
| 4 1/8" | 10 | 9 | 5 |
| 4" | 10 | 9 | 5 |
| 6 1/8" | 5 | 4 | 4 |
| 6" | 5 | 4 | 4 |
| 8" | 4 | 2 | 2 |
| 10" | 2 | 1 | 1 |
| 12" | 1 | 1 | 1 |