

# Φ110~Φ630 PVC-O Pipe Extrusion Production Line

## Φ110~Φ630 PVC-O管材挤出生产线



Molecularly oriented PVC(PVC-O) pipes have been used for over 40 years in municipal water supply, agricultural irrigation, and other pressurized water systems. Many countries, including Australia, China, India, the USA, and Brazil, have developed standards for PVC-O pipes, mostly based on ISO 16422.

分子定向聚氯乙烯（PVC-O）管道已在市政供水、农业灌溉及其他压力输水系统中应用超过40年。澳大利亚、中国、印度、美国和巴西等国家均已制定PVC-O管材标准，其中多数以ISO 16422为基础。

### PVC-O Pipe Advantage and Benefit

#### PVC-O管道的优势与效益

Compared to PVC-U and PVC-M, PVC-O pipes are widely accepted, leading to rapid growth in production and new lines being installed worldwide.

相比PVC-U和PVC-M管道，PVC-O管材凭借以下优势获得广泛认可，全球产量快速增长，新生产线持续投建：

- High flow capacity 高流通能力
- High impact strength 高抗冲击强度
- High toughness 高韧性
- Excellent damage tolerance 极强的抗损坏能力
- Light weight 重量轻
- Material and energy efficient ,more environmentally sustainable 材料与能源高效——更环保可持续

| DN250 PN20 pipe wall thickness 管材壁厚 |                |               |            |             |           |               |              |
|-------------------------------------|----------------|---------------|------------|-------------|-----------|---------------|--------------|
|                                     | DIAMETER<br>管径 | CLASS<br>压力等级 | WALL<br>壁厚 | MRS<br>强度等级 | C<br>设计系数 | DENSITY<br>密度 | KG/M<br>每米重量 |
| PVC-U                               | 250            | PN20          | 18.4       | 250         | 2.00      | 1.4           | 18.7         |
| PVC-M                               | 250            | PN20          | 14.9       | 250         | 1.40      | 1.4           | 15.4         |
| PVC-O                               | 250            | PN20          | 8.6        | 450         | 1.60      | 1.4           | 9.1          |
| PE100                               | 250            | PN20          | 27.9       | 100         | 1.25      | 0.95          | 18.5         |

### LIANSU PVC-O PRODUCTION LINES

#### 联塑PVC-O生产线



Liansu offers production lines to produce pipes that comply with ISO 16422 or with required national standards.

联塑提供的生产线可生产符合ISO 16422标准或所需国家标准的管材。

Liansu PVC-O production lines are designed to cover the production output capacity requirements in sizes from 110 through to 630.

联塑PVC-O生产线专为满足Φ110至Φ630管径的产能需求而设计。

| Model 型号                          | Pipe range(mm)<br>管径范围 | MRS<br>最小要求强度 |
|-----------------------------------|------------------------|---------------|
| LSP-250 PVC-O Pipe Extrusion line | 110 - 250              | 400,450,500   |
| LSP-400 PVC-O Pipe Extrusion line | 160 - 400              | 400,450,500   |
| LSP-630PVC-O Pipe Extrusion line  | 200 - 630              | 400,450       |

Liansu production lines can be tailored to produce product, strength up to MRS 500. Pressure classes up to PN25. The lines can also be tailored to produce product at lower MRS and pressure classifications.

联塑生产线支持定制化生产，最高可达到MRS 500强度等级和PN25压力等级，同时也可适配更低标准的强度和压力等级生产需求。

Liansu uses on line technology to produce biaxially oriented pipes. The production lines include specialized equipment designed and optimized to produce PVC-O pipes including extruder and pipe head, cooling and heating systems, expansion stage and inline socketing. The complete lines offer integrated control of the process.

联塑采用在线生产技术实现双轴定向管道制造。生产线为生产PVC-O管材配备经特殊设计和优化的专用设备，包括：挤出机及模具、真空成型，加热机构，拉伸机构、扩径成型和在线扩口加工装置，整套生产线提供全流程集成化控制系统。





## Material and pipe advantages 材料与管材优势

Molecularly oriented PVC results in a material with significantly improved properties. These include higher tensile strength, toughness and impact resistance. Fatigue performance is improved offering advantages for pumped systems.

分子定向工艺使PVC材料性能显著提升，包括更高的拉伸强度、韧性和抗冲击性。疲劳性能的改善尤其适用于泵送系统。

One of the most important advantages of PVC-O is the resistance to crack propagation due to the layered material structure created by the molecular orientation. This results in a much more predictable behavior of the material to any defects or damage and is a key factor in the long term performance of the pipe.

PVC-O最突出的优势在于其层状分子结构赋予的抗裂纹扩展能力，使材料对缺陷或损伤的反应更可预测，这是保证管道长期性能的关键因素。



PVC-U



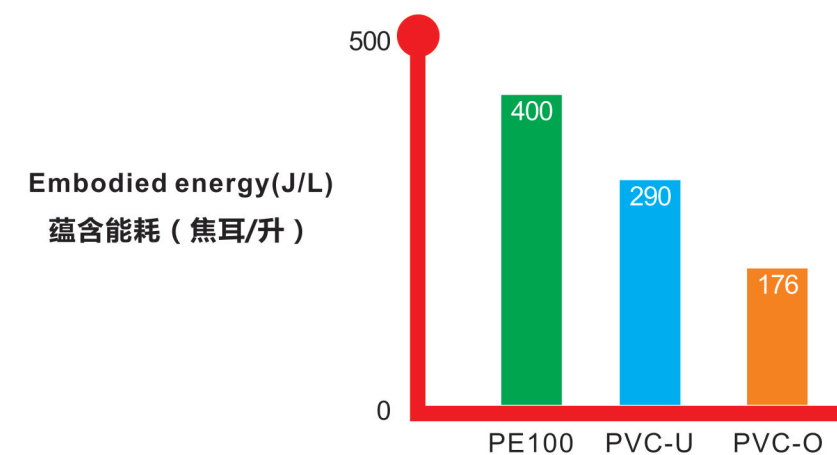
PVC-O

Enhanced toughness and ductility means higher resistance to damage during handling and installation.

增强的韧性和延展性意味着更高的运输安装抗损性。

Pipes are material and energy efficient with lower embodied energy based on equivalent hydraulic performance.

管材具有材料和能源效率高的特点，在同等水力性能的基础上，能耗更低。



PVC-O has very high resistance to impact with impact rupture energies up to 10 times that of PVC-U.

PVC-O的抗冲击性能极为优异，其冲击破裂能量可达PVC-U的10倍。

High flow capacity due to larger internal bore. The flow capacity exceeds that of other commonly used pressure pipe and can reduce pumping costs.

更大的内径带来高流通能力，其流量表现优于常见压力管道，可降低泵送成本。



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