

# Industrial Piping Solutions

Under One Roof

**SHK<sup>®</sup> Pneumato**

Pneumatic PPR-FR Pipes & Fittings



First Time In India

PPR Flame Retardant Pipes  
with full range  
(V0, V1, V2 Ratings)

**SHK<sup>®</sup> Pneumato**

Pneumatic PPR-FR Pipes & Fittings

**Most Energy  
Saving Pipes for  
All Air Applications**

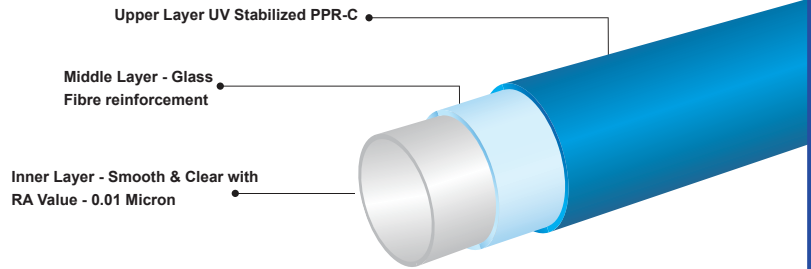


9001 - 2008 Certified Company



**SHK Polymers Industries**

- SHK AQUA - PPR-C Triple Layer Pipe & Coil
- SHK THERMO - PPR-FR Composite Pipe: Green
- SHK PNEUMATO - PPR-FR Composite Pneumatic Pipe: Blue
- SHK PPR Fittings from 20 mm to 160 mm



### Application

- Compressed Air
- Instrument Air
- Vacuum Air
- Nitrogen Air

### SHK Flame Retardant Pipes

Thermoplastic Polyolefin being organic compound burns or decompose on exposure to fire generates toxic fumes & smoke, but Flame Retardant or Fire resistant compounds help mitigate fire danger. In order for fire to occur its three basic elements (fuel, heat, and oxygen) must exist. The science of flame retardance uses chemical reactions to moderate one or more of these attributes.

A variety of flame retardant additives can be deployed in thermoplastic polymers depending on the requirements of individual end-use applications. During combustion, flame retardant additives react with the burning polymer in the vapor phase disrupting, at a molecular level, the production of free radicals and shuts down the combustion process. This mechanism is commonly used with halogenated flame retardant systems.

### Improving Product Safety With Flame Retardant Plastics

Using flame retardant technologies to reduce fire hazards is a basic element of product safety. The objective of flame retardant systems is to delay ignition and/or fire spread.

### Flame Retardant Compounds Help Mitigate Fire Danger

- Increase plastic's ignition resistance
- Reduce the speed of flame spread
- Reduce heat release
- Reduce smoke & fume generation

When exposed to heat or flame, plastics undergo pyrolysis, which results in thermal degradation of the resin's physical properties (softening and melting) and releases gases that are potentially volatile.

Flame retardant plastics attempt to combat these conditions through one of several mechanisms that moderate one or more of the elements (fuel, heat, or oxygen) necessary for burning to take place.

Even with flame retardant treatment, no plastic can be rendered entirely fire proof. Under flashover conditions all plastics, even those that are inherently fire resistant, will at some point combust.