

Guidelines For Handling Polyethylene Pipes And Fittings

Handling of polyethylene pipes must be performed safely, avoiding any injuries to the personnel and damage to the pipes and fittings:

- Polyethylene pipes do not rust or corrode during storage, transport or subsequent service, but are subject to external damage from scoring or scraping during improper handling. Sharp edged, narrow or abrasive equipment and accessories (like rough-edged forks of a forklift, rope straps, chains, hooks, straps with embedded sharp stones, and so on) should not be used in direct handling the pipe. The pipe must not be allowed to kink, or suffer from stones and sharp objects at any time. As a rule, scoring or cuts in pipes deeper than 10 % of the pipe wall thickness may be a cause for rejection for any pressure application.
- Coiled pipe must not be transported or uncoiled by rolling along the ground as the coil can easily tip over. When lifting coils, lifting straps must be placed around the entire coil. When using a forklift, contact points must be protected (for example, fork tines may be padded, or inserted in a section of polyethylene pipe longer than tines, and so on); the lifting must be performed on the entire coil. Forks must not be inserted between coils in a stack or between pipes in the coil.
- Straight lengths of pipes should be transported and stored on a flat surface in crates or in stacks free from any superimposed loading. Recommended maximum height is 1 to 2 m dependant on wall thickness and storage conditions.
- An adequate, level space free of stones, debris, etc., shall be prepared prior to unloading the pipe. Spools must be placed on flat, stable ground. Polyethylene pipe must not be rolled, pushed or dropped off the truck immaterial whether it is in coils, crates, on spools, or as loose straight lengths. Pipe received in crates, strapped coils and on spools should be stored in the same package till use. Measures should be undertaken to prevent rolling of loose pipes and coils.
- Safe handling and operating procedures must be observed at all times. Keep unnecessary persons away from the working space during unloading, uncoiling and handling of the pipes. Only properly trained personnel shall operate unloading equipment. Appropriate unloading and handling equipment of adequate capacity shall be used for handling the pipe at all stages. When using a forklift, ensure correct positioning of the load on the forks – a load on the forks that are too short or too close, or a load too far out on the forks, may become unstable and pitch forward or to the side, resulting in damage to persons or property. Spreader bars should be used when lifting pipes longer than 6 m and spools. Do not lift spools through (or underneath) the outer rim of the drum – use special lugs on sides of the A-frame (insert chain hooks into the lugs from outside).
- Electrofusion fittings must be stored under cover in dry conditions. Do not remove electrofusion fittings from packaging prior to use to avoid contamination.
- Black pipes are designed to withstand exposure to sunlight, but pipes made of coloured polyethylene compound should not be exposed to heat and direct sunlight for any prolonged period of time (exposure time during storage and transport is not recommended to exceed 6 months). It is recommended to cover with black polyethylene film coloured pipes that are likely to be stored outside for long periods.

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Waters & Farr
105 Neilson St, Onehunga
PO Box 133299, Onehunga
Auckland, New Zealand
Phone +64 9 622 4036
Fax +64 9 622 4037

Polyethylene fittings should not be exposed to direct sunlight and should not be kept close to heat sources during storage and transport. Avoid contamination from fuel and other chemicals.

- Pipes and fittings shall not be subjected to open flame or intense heat during storage, transport or subsequent service.
- Maintain safe operating procedures when uncoiling polyethylene pipe – coiled pipe may uncoil with considerable force causing injuries to persons and damage to the property. We recommend use of an appropriate mechanical fixture for uncoiling the pipe, or of other means for safe containing the coil. Do not cut the straps holding layers together prior to start of uncoiling pipe from coils or spools. Remove the straps one at a time as required as uncoiling progresses. Secure the uncoiled end of the pipe to prevent re-coiling, and the other end when finishing uncoiling. In case of only partial use of the pipe on a spool, secure the loose end of the remaining pipe in the clamp on the A-frame. Use spool brakes to prevent uncontrolled rotation of the drum. Take appropriate measures to prevent re-coiling of the pipe during consequent handling (a re-straightening device may be used).