





















CERTIFICATIONS AND LISTINGS

REHAU MUNICIPEX Tubing, Effective March 2018

TABLE 1: REHAU CERTIFICATIONS AND LISTINGS

MUNICIPEX TUBING CERTIFICATIONS - March 2018

Application	Tubing General					Municipal Applications	Water Service Pipe Applications		Fire Rated Assembly		Plenum Applications	
	NSF	ASTM	CSA	ICC	PPI	AWWA	NSF	NSF	ULC	UL	NSF	
Agency Responsible for Certification	NSF-pw (NSF14/61/G)	F876/F877	B137.5	PMG-1379	TR-3/TR-4	C 904	U.P. Code	ANSI/NSF 61/ Annex G	ULC S101	UL 263	ASTM E84	ULC S102.2
Applicable Standards for Testing						AWWA C904						
Official Logo for Certification						AWWA C904						
MUNICIPEX®												
261056	3/4" MUNICIPEX	✓	✓	✓	✓	✓	✓	✓	✓	✓	*	✓
261076	1" MUNICIPEX	✓	✓	✓	✓	✓	✓	✓	✓	✓	*	*
261096	1 1/4" MUNICIPEX	✓	✓	✓	✓	✓	✓	✓	✓	✓	*	*
261116	1 1/2" MUNICIPEX	✓	✓	✓	✓	✓	✓	✓	✓	✓	*	*
261136	2" MUNICIPEX	✓	✓	✓	✓	✓	✓	✓	✓	✓	*	*
MUNICIPEX PRE-INSULATED												
209094	1" MUNICIPEX Pre-insulated	✓	✓	✓		✓	✓	✓				
281761	2" MUNICIPEX Pre-insulated	✓	✓	✓		✓	✓	✓				
MUNICIPEX FORCE MAIN												
318276	1 1/4" MUNICIPEX Force Main		✓	✓		✓					*	*
318272	1 1/2" MUNICIPEX Force Main		✓	✓		✓					*	*
318273	2" MUNICIPEX Force Main		✓	✓		✓					*	*

* See corresponding Technical Bulletin for further information

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1.

REHAU MUNICIPEX TUBING

Certifications and Listings for REHAU MUNICIPEX Tubing

MUNICIPEX® tubing is rigorously tested in house to ensure the highest quality crosslinked polyethylene (PEXa) tubing is produced. MUNICIPEX tubing is also extensively tested by independent third-party testing agencies and meet all applicable requirements for potable water distribution or other applications, including municipal water service lines.

NSF/ANSI Standard 14: Plastic Piping System Components and Related Materials

This standard establishes minimum physical, performance and health effect requirements for plastic piping system components and related materials. NSF-pw covers testing to NSF 14 and NSF 61.



CSA B137.5: Crosslinked Polyethylene (PEX) Tubing Systems for Pressure Applications

This standard defines requirements for crosslinked polyethylene pressure tubing systems. Systems covered by this standard are intended for use in potable water distribution or other applications, including municipal water service lines, reclaimed water distribution, radiant panel heating and cooling systems, hydronic baseboard heating systems, snow and ice melting heating systems, building services piping, compressed air distribution and ground source geothermal systems, provided that the PEX tubing systems covered by the standard comply with the applicable code requirements.



ASTM F876: Standard Specification for Crosslinked Polyethylene (PEX) Tubing

This specification covers crosslinked polyethylene (PEX) tubing that is outside diameter controlled, made in one standard tubing dimension ratio, and pressure rated for water at three temperatures (160 psi @ 73.4°F, 100 psi @ 180°F, 80 psi @ 200°F). Included are requirements and test methods for material, workmanship, dimensions, sustained pressure, burst pressure, environmental stress cracking, stabilizer functionality and degree of crosslinking.



ASTM F877: Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems

This specification covers requirements, test methods and methods of marking for crosslinked polyethylene plastic hot- and cold-water distribution systems components made in one standard dimension ratio and intended for 100 psi water service up to and including a maximum working temperature of 180°F (82°C). Components are comprised of tubing and fittings. Requirements and test methods are included for materials, workmanship, dimensions and tolerances, hydrostatic sustained pressure strength, thermocycling resistance, fittings and bend strength. The components covered by this specification are intended for use in residential and commercial, hot and cold, potable water distribution systems as well as municipal water service lines, radiant panel heating systems, hydronic baseboard heating systems, snow and ice melting systems and building services pipe.

PPI TR-3: Policies and Procedures for Developing Hydrostatic Design Bases (HDB), Pressure Design Bases (PDB), Strength Design Bases (SDB), and Minimum Required Strengths (MRS) Ratings for Thermoplastic Piping Materials or Pipe

This report presents the policies and procedures used by the HSB (Hydrostatic Stress Board) of PPI (Plastics Pipe Institute) to develop recommendations of estimated long-term strength ratings for commercial thermoplastic piping materials. Recommendations are published in PPI TR-4 Recommended Hydrostatic Design Bases and Maximum Recommended Hydrostatic Design Stresses for Thermoplastic Piping Materials.

Listings are developed from data submitted to the HSB by the manufacturer. The general method used to evaluate the data is described in ASTM D2837 Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials with additional requirements as specified in PPI TR-3.



ICC PMG listing PMG-1379: REHAU MUNICIPEX

This listing covers REHAU MUNICIPEX to the building, plumbing and mechanical codes and all associated applicable standards.

MUNICIPEX tubing is accepted by the following model plumbing and mechanical codes:

Uniform Plumbing Code (UPC)

Uniform Mechanical Code (UMC)

Uniform Solar Energy and Hydraulics Code (USEHC)

International Plumbing Code (IPC)

International Mechanical Code (IMC)

International Residential Code (IRC)

National Plumbing Code of Canada (NPCC)

Installation Code for Hydronic Heating Systems (CSA B214)

International Standards Organization (ISO)

The quality management systems in REHAU's production facilities are certified to the international quality standard ISO 9001 by an independent third-party auditing agency. The ISO 9001 certification encompasses quality systems for product design and product manufacture.

2.

MUNICIPAL APPLICATIONS

AWWA C904: Crosslinked Polyethylene (PEX) Pressure Tubing, 1/2 in (12 mm) Through 3 in (76 mm), for Water Service

This standard describes crosslinked polyethylene (PEX) pressure tubing made from material having a standard PEX material designation code of PEX 1306, or higher, according to ASTM F876 and intended for use as underground potable water, reclaimed water, and wastewater service lines in sizes 1/2 in. (13 mm) through 3 in. (76 mm) that conform to a standard dimension ration of SDR9. Tubing may incorporate an optional polymeric outer layer.

3.

WATER SERVICE PIPE APPLICATIONS

ANSI/NSF Standard 61: Drinking Water System Components – Health Effects

This standard covers products that come into contact with drinking water. The primary focus of this standard is to establish minimum health effects requirements for the chemical contaminants and impurities that are indirectly imparted to drinking water from products, components and materials used in drinking water systems.

Annex G: Weighted Average Lead Content Evaluation Procedure to a 0.25% Lead Requirement

The procedures for determining the lead content of drinking water system components were removed from NSF/ANSI 61 Annex G and reestablished in NSF/ANSI 372. Annex G is due to be retired from NSF/ANSI 61 three years after the adoption of NSF/ANSI 372.

NSF/ANSI 372: Drinking Water System Components – Lead Content

This standard establishes procedures for the determination of lead content based on the wetted surface areas of products. This standard applies to any drinking water system component that conveys or dispenses water for human consumption through drinking or cooking.

U.P. Code: Uniform Plumbing Code

U.P. Code "This listing certifies that all products labeled with U.P. Code are in compliance with the latest version of the Uniform Plumbing Code."

4.

FIRE-RATED ASSEMBLY APPLICATIONS



CAN/ULC S101: Standard Methods of Fire Endurance Tests of Building Construction and Materials

This standard covers fire endurance tests applicable to walls, partitions, floors, roofs, ceilings, columns, beams and girders, as well as to some components of these building sub-assemblies.

ANSI/UL 263: Fire Tests of Building Construction and Materials

This standard covers fire tests that are applicable to assemblies of masonry units and to composite assemblies of structural materials for buildings, including bearing and other walls and partitions, columns, girders, beams, slabs, and composite slab and beam assemblies for floors and roofs. They are also applicable to other assemblies and structural units that constitute permanent integral parts of a finished building.

5.

PLENUM APPLICATIONS



Flame Spread and Smoke Development Index

A plenum is defined as an enclosed portion of the building structure that is designed to allow air movement, thereby serving as part of an air distribution system. Plenums can serve as supply, return, exhaust and ventilation portions of the air distribution system.

The National Building Code of Canada (NBCC) and the International Mechanical Code (IMC) requires that combustible materials installed within air plenums have a flame spread index of not more than 25, and a smoke developed index of not more than 50. These numbers do not contain units, and are used as index (comparative) ratings of how quickly building materials burn and how much smoke is developed when they burn. Pipes that meet these requirements are sometimes said to have a “plenum rating.”

CAN/ULC S102.2: Standard Method of Test For Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies

The purpose of this standard is to determine the comparative burning characteristics of the material or assembly under test by evaluating the flame spread over its surface when exposed to a test fire.

ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials

This is a fire-test-response standard for the comparative surface burning behavior of building materials. The purpose of this test method is to determine the relative burning behavior of the material by observing the flame spread along the specimen. Flame spread and smoke developed index are reported.

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