

# Glossary

**ozone resistance:** the ability to withstand the deteriorating effects of ozone (generally cracking).

## P

**Pancure:** a vulcanization process in which the hose is taken from the covering operation, coiled either on reels or horizontal pans and placed directly into the vulcanizer.

**permeation:** the process of migration of a substance into and through another, usually the movement of a gas into and through a hose material; the rate of permeation is specific to the substance, temperature, pressure and the material being permeated.

**pinpricked:** perforations through the cover of a hose to vent permeating gases.

**pitch:** 1) the distance from one point on a helix to the corresponding point on the next turn of the helix, measured parallel to the axis; 2) the distance between the two peaks of adjacent corrugation or convolution.

**plating:** a material, usually metal, applied to another metal by electroplating, for the purpose of reducing corrosion; typically a more noble metal such as zinc is applied to steel.

**plied yarns:** a yarn made by twisting together two or more single yarns.

**ply:** an individual layer in hose construction.

**polymer:** a macromolecular material formed by the chemical combination of monomers, having either the same or different chemical

compositions.

**porous tube:** (1) The physical conditions of a hose tube due to presence of pores. (2) A hose tube that has low resistance to permeation.

**pressure:** force ÷ unit area. For purposes of this document, refers to PSIG (pounds per square inch gauge).

**pressure drop:** the measure of pressure reduction or loss over a specific length of hose.

**pressure, burst:** the pressure at which rupture occurs.

**pricker marks:** the marks due to perforating the cover of the hose prior to or after vulcanization.

**proof pressure test:** a non-destructive hydrostatic pressure test applied to a product to show up possible defects.

**psi (PSI):** pounds of pressure per square inch of area (lb<sup>2</sup>/in).

**PTFE:** polytetrafluoroethylene, a high molecular weight fluoroplastic polymer with carbon atoms shielded by fluorine atoms having very strong inter atomic bonds, giving it chemical inertness.

**PVC:** polyvinyl chloride. A low cost thermoplastic material typically used in the manufacture of industrial hoses. The operating temperature range is -500°F to +1750°F (-295.5°C to +954.4°C).

## R

**reinforcement:** (1) The strength members, consisting of fabric, cord, and/or metal, of a rubber hose. (2) The non-rubber elements making up a rubber

hose. (3) The non-rubber compounding ingredients which impart increased tensile strength or other desirable properties.

**RMA:** The Rubber Manufacturers Association, Inc.

**rough-bore hose:** a wire reinforced hose in which a wire is exposed in the bore.

## S

**SAE:** Society of Automotive Engineers.

**safety factor:** divisor of burst pressure used to determine working pressure.

**service test:** a test which makes the hose operate under service conditions in the actual equipment.

**smooth bore hose:** a wire reinforced hose in which the wire is not exposed in the bore.

**smooth-bore:** a term used to describe the type of inner core in a hose.

**soft end:** an end in which the rigid reinforcement of the body, usually wire, is omitted.

**specification:** a document setting forth pertinent details of a product.

**specific gravity:** the ratio of the weight of a given substance to the weight of an equal volume of water at a specified temperature.

**spiral:** a method of applying reinforcement in which there is not interlacing between individual strands of the reinforcement.

**static wire:** a wire incorporated in a rubber hose to give quality or additional power to

conducting or transmitting static electricity.

**straight end:** an end with inside diameter the same as that of the main body.

**standard:** a document, or an object for physical comparison, for defining product characteristics, products, or processes, prepared by a consensus of a properly constituted group of those substantially affected and having the qualifications to prepare the standard for use.

**static wire:** wire incorporated in a hose to conduct static electricity.

**stem:** see nipple.

**surge (spike):** a rapid and transient rise in pressure.

**swelling:** an increase in volume or linear dimension of a specimen immersed in liquid or exposed to a vapor.

## T

**tight braid:** (1) An unevenness in the braid reinforcement caused by one or more ends of the reinforcement being applied at a greater tension than the balance of the ends of the braided reinforcement. (2) Also refers to a localized necking down of the braided reinforcement caused by a braider stop or some other cause.

**tube:** the innermost continuous all-rubber or plastic element of a hose.

**tubing:** a non-reinforced, homogeneous conduit, generally of circular cross-section.