Basic information on refrigerants

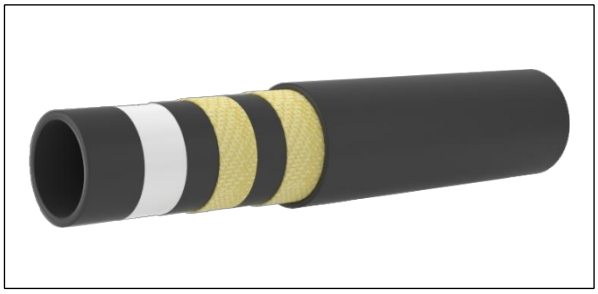
A refrigerant is a substance involved in the exchange of heat in a refrigeration appliance that takes up heat by evaporation at a low temperature and pressure and gives up heat by condensation at a correspondingly higher temperature and pressure. It can be a single component or a mixture.
Refrigerants are substances of natural origin (ammonia, water, carbon dioxide), flammable gases and mixtures thereof (propane, butane) and synthetic agents - hydrocarbons in which the hydrogen atoms have been replaced by chlorine, fluorine or bromine, resulting in non-flammable, low-boiling substances popularly known as CFCs. Refrigerants are generally identified by a numerical symbol preceded by the letter R, e.g. R12, R22, R134a. Due to their adverse environmental impact (destruction of the ozone layer), the use of CFCs is restricted and some are banned - in newly manufactured or refilled appliances (e.g. R12, R22, R502).

R12 - formerly the most popular refrigeration working fluid, widely used in domestic refrigerators, replaced by R134a.
R22, R502 - used in larger refrigeration units, replaced by newly developed mixtures of R402A, R404A, R407, R507, among others.
R134a - the most popular refrigerant to date, particularly in automotive air conditioning.

R1234yf - the latest refrigerant used in automotive air conditioning to replace R134a.

Refrigerants appear on the market under manufacturers' trade names, e.g.: Suva HP62, Suva MP52, Forane134a, Reclin 404A, etc. In addition to refrigerants, there are lubricating oils in systems, the effects of which on hose material and seals must always be considered. Mineral oils (MO) and synthetic oils such as polyalphaolefins (PAO), alkylbenzenes (AB), polyalkylglycols (PAG), polyesters (POE) and polyvinyl ethers (PVE) are used.

Air conditioning hoses



3055

Barrier-type freon hose - thick-walled Inner layer black CR rubber
Nylon (PA) layer
Reinforcement: two polyester braids
Outer layer: black EPDM rubber, microperforated
Operating temp: -30°C to +125°C

Highest quality hose designed for automotive and industrial refrigeration and air conditioning systems working on the basis of freon R134a, R12, R404a Suva MP52 and R22 mineral oils and synthetic PAG, POE and PVE. Oil, abrasion and weather resistant outer layer.

Standards: SAE J2064 type C class II.
Assembly: Use crimped hose fittings BU-3055 (IT-43, IT-44).

index	internal diameter [inch]	internal diameter [mm]	external diameter [mm]	working pressure [bar]	Bursting pressure [bar]	bend radius [mm]
BU-3055-08	5/16	7,9	18,3	24	121	102
BU-3055-10	13/32	10,3	22,4	24	121	114
BU-3055-13	1/2	12,7	24,6	24	121	127
BU-3055-16	5/8	15,9	27,7	17	86	165