

**Rubber chemical hoses (EPDM) - for anhydrous ammonia**



**AMMOTECH**

**Specialised hose for ammonia (EN ISO 5771) Lining:**

black synthetic rubber

**Reinforcement:** synthetic cord

**Outer layer** Black synthetic rubber, microperforated

**Operating temp:** -40°C to +55°C

Delivery hose for transfer of **anhydrous ammonia in liquid and gaseous form**. Inner layer made of thick antistatic rubber ( $R \leq 10^6 \Omega / m$ ). High-strength cord reinforcement for a high safety factor of 5:1. Outer layer made of antistatic rubber ( $R \leq 10^6 \Omega / m$ ) resistant to chemicals, abrasion, ozone and weather, microperforated. Hose complies with the requirements of EN ISO 5771:2008 for rubber hoses for the transport of anhydrous ammonia.

A hose designed in particular for ammonia in the production of nitrogenous fertilisers, cleaning agents and for the synthesis of many chemical compounds. It can be used in other industries using anhydrous ammonia, such as industrial refrigeration (the refrigerant R717 - ammonia, is used in large refrigeration plants; flexible hoses are primarily used for filling plants), metallurgy and many others. The hose can also be used for water-dissolved ammonia - ammonia water, used extensively in industry, e.g. in wastewater treatment plants (pH regulator), for regeneration of ion exchange resins, in the rubber and plastics industry and for boiler water treatment.

It is important to bear in mind the harmfulness of ammonia: poisonous, flammable and explosive when mixed with air, an uncontrolled leak of which can create an immediate danger to life or cause property damage. According to EN ISO 5771, it is only permissible to use steel ends permanently fitted to the hose (recommended by the hose manufacturer: AISI 304 or AISI 316 stainless steel ends, with male threads or flanges, permanently clamped with collets). Moist ammonia has a corrosive effect on zinc, copper and its alloys. The operation of ammonia hoses and tubing requires a trained operator and the use of appropriate inspection and testing procedures for the condition of the hose (tubing). New ammonia hoses should be tested before use, the hoses should be visually inspected daily, tested regularly during operation - according to EN ISO 5771 every 12 months, according to the manufacturer's recommendations based on ARPM-IP-11-2 more frequently: in the first year every 90 days, thereafter every 30 days (every 30 days also in case of heavy use), and whenever an unusual appearance of the hose or an unusual event is noted during operation. Pressure test according to EN ISO 1402 with a test pressure of 63 bar. Damaged hoses should be taken out of service immediately. It is imperative that you contact Tubes International when selecting a solution for complete ammonia hoses.

index	internal diameter [mm]	external diameter [mm]	wall thickness [mm]	working pressure [bar]	test pressure [bar]	Bursting pressure [bar]	mass [kg/m]	Roll length [m]
IV-AMMOTECH-013	13	28	7,5	25	63	125	0,53	60 / 120
IV-AMMOTECH-016	16	31	7,5	25	63	125	0,61	60 / 120
IV-AMMOTECH-019	19	34	7,5	25	63	125	0,69	60 / 120
IV-AMMOTECH-025	25	40	7,5	25	63	125	0,85	60 / 120
IV-AMMOTECH-032	32	49	8,5	25	63	125	1,11	60 / 120



Hose made of AMMOTECH DN13 hose terminated with a nozzle with 1/2" BSP female thread, in AISI 316 stainless steel, sleeved AISI 304 stainless steel clamp. For ammonia, use the end fittings of stainless steel. Moist ammonia has a corrosive effect on zinc, copper and their alloys. Hoses for anhydrous ammonia must be subjected to regular inspections and tests, including hydrostatic testing with test pressure (63 bar according to EN ISO 5771). Hoses for anhydrous ammonia must also be

appropriately labelled. They may only be used for anhydrous ammonia and only by trained personnel.



Hose AMMOTECH has very thick layer interior made of antistatic rubber ( $R \leq 10^6 \Omega / m$ ), reinforcement with high-strength cords and a layer of outer sheath made of antistatic rubber ( $R \leq 10^6 \Omega / m$ ) resistant to chemicals, abrasion, ozone and conditions atmospheric. Microperforated outer layer (*pinpricked*). The hose complies with the requirements of the EN ISO 5771:2008 for rubber transport hoses anhydrous ammonia.