



Frankfurt September 19, 2022

**BEST FOR YOUR TEST** 

## TEST REPORT N° P-22-07

## **Test Certificate for Permeability**

Test Material	Superfit Gas Proof Sheet (Fumigation Sheet) NJGP18X15
Manufacturer/ Supplier	NANJING SUPER FIT I & E CO., LIMITED.
	Room 1212 Building E, Wanda Plaza, Jianey District
	Nanjing, Jiangsu Province, China, P.O. # 210017
Fumigant	Phosphine (derived from aluminum phosphide)
Objective	Determination of phosphine permeated through the test material at ambient conditions.
Method	The test cell consisted of two chambers with identical volume (180 cm³ each) separated by the test material. The lower chamber contained aluminum phosphide and water to release phosphine and represented a fumigation area covered with the test material. In the upper chamber, the gas which was permeated through the test material was collected. The permeability of the test material was determined by measuring the phosphine concentration in the two chambers after an incubation time of five days. The concentrations were measured by using phosphine gas detector tubes (Dräger and MSA).  The determination based on SOP-018 Version 02 dated 19 September 2022, issued by Nanjing Superfit I & E Co., Limited.
Concentration of Fumigant [ppm]	1500
Permeability	< 1.0 mg/m <sup>2</sup> per day
Date of Analysis	06-11 September 2022
Comment	Based on SOP-018, the material is regarded as gastight and can be recommended for fumigation use with phosphine.

Frank De Velde Wilmer

Sr. Analyst

Physical Testing and Permeability
Deutschland Lab Services Limited.