



Frankfurt November 22, 2019

BEST FOR YOUR TEST

TEST REPORT

N° P-19.369

Test Certificate for Permeability

Test Material	HKN34 Plast Gas Proof Sheet (Fumigation Sheet) eXIBEL® AD
Manufacturer/ Supplier	HKN 34 Tekstil Urunleri, Ithalat Ihracat Toptan Ticaret Valikonagi Caddesi Haci Emin efendi sokak No 46 D 12 Nisantasi ISTANBUL, TURKEY.
Fumigant	Phosphine (derived from aluminium phosphide)
Objective	Determination of phosphine permeated through the test material at ambient conditions.
Method	<p>The test cell consisted of two chambers with identical volume (180 cm³ each) separated by the test material. The lower chamber contained aluminium 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).</p> <p>The determination based on SOP-018 Version 02 dated 06 November 2019, issued by HKN34.</p>
Concentration of Fumigant [ppm]	1500
Permeability	< 1.0 mg/m ² per day
Date of Analysis	08-13 November 2019
Comment	Based on SOP-018, the material is regarded as gastight and can be recommended for fumigation use with phosphine.

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