

Performance Certificate 10/01

Demountable Perimeter Flood Abatement System IBS

19 METERS OF THE IBS-FLOOD ABATEMENT SYSTEM (PRODUCER IBS GMBH, THIERHAUPTEN), MOUNTED TO A CONTINUOUS WALL TO A HEIGHT OF 0.95M AND WITH 2 CORNER ELEMENTS (90° AND 60°) AND 2 ADAPTERS TO A CONCRETE WALL

HAVE BEEN TESTED WITHIN

THE HYDRAULICS LABORATORY OF CENTRE OF CLIMATE ADAPTATION RESEARCH (KLIFF)

IN THE PERIOD OF

01.08.2009 – 30.10.2009

THE FOLLOWING PERFORMANCE INDICATORS HAVE BEEN DETERMINED:

DOCUMENTATION	Complete, clear and consistent with good legibility of the drawings and readability of the text
DEPLOYMENT	<p>completeness of the system at delivery</p> <p>good self-explanatory material for instruction of the workforce</p> <p>workforce requirements: 2 people 1 skilled instructor 1 assisting person</p> <p>Deployment time with 2 persons: 7,5 min per wall segment consisting of 1 pillar and 7 wall beams each 3,0 m long (= 2,5 min/per running meter of the wall)</p> <p>Foundation requirements: Plain and solid (e.g. concrete, asphalt, pavement with seams of mortar) anchoring components in concrete foundation to fix the pillars</p> <p>Ease of assembly: simple without special knowledge.</p>
DURABILITY	<p>Minimum life cycle:: after 100 deployments all Aluminium components (pillar and wall beam) are still in functional operation</p> <p>gaskets till 10 deployment cycles in function</p>
LOAD RESISTANCE	<p>Hydrostatic: tested for a maximum water depth of 95 cm</p> <p>Hydrodynamic: Tested for maximum current of 2 m/s</p> <p>Debris load: Wooden log of 50x50 cm², 0,4 t weight with maximum approach velocity of 3,35 m/s</p> <p>deformation no permanent deformation</p> <p>at debris load test: only elastic deformation.</p> <p>Leakage rate: till 0,4m water depth: no leakage at 95 cm water depth: 10,0 l/(hm) at the begin, 6,7 l/(hm) after 24hours of operation</p>

HAMBURG, 01.03.2010

(PROF. DR.-ING. E. PASCHE, INSTITUTSLEITUNG)