

Prüfbericht-Nr.: <i>Test Report No.:</i>	50312857 001	Auftrags-Nr.: <i>Order No.:</i>	Seite 1 von 11 Page 1 of 11		
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>			
Auftraggeber: <i>Client:</i>	Bestway (Hong Kong) International Ltd. / Suite 713, 7/Floor, East Wing, Tsim Sha Tsui Centre, 66 Mody Road, Kowloon Hong Kong				
Prüfgegenstand: <i>Test item:</i>	Hand pump				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	P3046; P3137				
Auftrags-Inhalt: <i>Order content:</i>	GS mark certification				
Prüfgrundlage: <i>Test specification:</i>	EN 16051-2:2012 AfPS GS 2019:01 PAK				
Wareneingangsdatum: <i>Date of receipt:</i>	23.09.2019	Detaillierte Fotodokumentation siehe Anlage zu diesem Bericht Detailed photo documentation see appendix to this report			
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000995505				
Prüfzeitraum: <i>Testing period:</i>	23.09.2019 – 22.06.2020				
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shanghai) Co., Ltd.				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.				
Prüfergebnis*: <i>Test result*:</i>	Pass				
geprüft von / tested by:		kontrolliert von / reviewed by:			
22.06.2020	Ricky Wang/ PE	22.06.2020	David Dai/ Reviewer		
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>
Sonstiges / Other: Foreseeable use was considered. Currently neither a safeguard clause procedure has been invoked nor is an increase in accidents known for this/these product(s). This test report is only valid together with: Attachment 1:Material list for PAHs risk assessment					
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

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Prüfbericht-Nr.: 50312857 001
Test Report No.:

Seite 3 von 11
Page 3 of 11

Produktbeschreibung
Product description

<p>1 Produktdetails <i>Product details</i></p>	<p>The product is hand pump for inflating consumer products. Details refer to CDF.</p>
<p>2 Maße / Gewicht <i>Dimensions / Weight</i></p>	<p>See CDF</p>
<p>3 Bedienelemente <i>Operating elements</i></p>	<p>N/A</p>
<p>4 Ausstattung / Zubehör <i>Equipment / Accessories</i></p>	<p>N/A</p>
<p>5 Verwendete Materialien <i>Used materials</i></p>	<p>See CDF</p>
<p>6 Sonstiges <i>Other</i></p>	<p>N/A</p>

P3046



P3046



P3137



P3137



Prüfbericht-Nr.: 50312857 001 <i>Test Report No.:</i>		Seite 4 von 11 Page 4 of 11	
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Absatz	EN 16051-2:2012	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

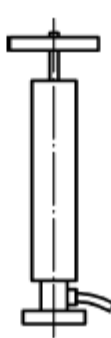
1	<p>Scope</p> <p>This document specifies safety requirements, performance requirements and requirements for marking and labelling of air pumps for inflatable consumer articles including the adapter side interface geometry between pump adapters and valves for inflatable consumer articles.</p> <p>This document does not apply for complete pumps (including tubes and adapters) for inflation and deflation sold together with the appropriate consumer article as a set.</p> <p>This document is not applicable to electrical inflators.</p>
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2	Normative references
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3	Terms and definitions
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4	Air pumps
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4.1	<p>Types of air pumps</p> <p>Air pumps are classified in types as shown below (examples see Figures 1 and Figure 2):</p> <p>a) Type H, hand-operated air pump; b) Type F foot-operated air pump.</p>	Hand pumps, Type H	P
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<p>EXAMPLE 1</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Figure 1 — Hand operated air pump, type H, example</p>	
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Prüfbericht-Nr.: 50312857 001 <i>Test Report No.:</i>		Seite 5 von 11 Page 5 of 11	
Absatz	EN 16051-2:2012	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation
	EXAMPLE 2  Figure 2 — Foot operated air pump, type F, example		
4.2	Requirements and test methods		
4.2.1	General If not otherwise stated air pumps shall be tested appropriately in accordance with their individual functions and properties. All test related to pressure and displaced volume shall be performed at an ambient temperature of $(20 \pm 3)^\circ\text{C}$.	Informative.	P
4.2.2	Safety requirements There shall be no sharp corners or edges. Where the pump mechanism form shear and pinch points safety distances in accordance with EN ISO 13857 shall be applied.	Safety distances checked and fine. No such sharp corner/edges or shear/pinch points.	P
4.2.3	Nominal pressure		
4.2.3.1	Requirements The maximum force to achieve the rated nominal air pressure shall not exceed 600 N for hand and foot operated air pumps. The interface of connecting parts (e. g. tube between valve and pump) shall be designed in a way that they do not become loose or defect when the allowed maximum pressure of the pump is applied.	Operating forces for nominal air pressure are tested. P3046: It is ca. 460N for 1.05bar. P3137: It is ca. 530N for 1.59bar. Connecting parts function well at nominal air pressure.	P

Prüfbericht-Nr.: 50312857 001 <i>Test Report No.:</i>		Seite 6 von 11 Page 6 of 11	
Absatz	EN 16051-2:2012	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / <i>Requirements - Tests</i>	<i>Measuring results - Remarks</i>	<i>Evaluation</i>
4.2.3.2	<p>Testing</p> <p>The achievable pressure shall be measured at the interface to the article when the pump is normally operated up to a maximum force of 600 N.</p> <p>For testing the adhesion of interface points any article of the appropriate pressure class shall be applied for testing. The article shall be inflated to the rated nominal pressure and checked for continuous adhesion of connecting points by visual inspection. This procedure shall be repeated ten times.</p> <p>After complete compression air pumps of type F shall reset to their initial position within 3 s when tested at an ambient temperature of $(20 \pm 3) \text{ }^\circ\text{C}$.</p>	<p>P3046: The pressure at 600N is 1.8bar.</p> <p>P3137: The pressure at 600N is 1.8bar.</p> <p>Informative.</p> <p>Informative.</p>	P
4.2.4	Operational reliability		
4.2.4.1	<p>Requirements</p> <p>Air pumps shall perform appropriately after being submitted to the durability test (4.2.4.2.1).</p> <p>When tested for static strength in accordance with 4.2.4.2.2 there shall be no deformation or brake of the operating element (e. g. handle or foot plate).</p>	<p>Test performed and products function well after test.</p>	P
4.2.4.2	Testing		

Prüfbericht-Nr.: 50312857 001 Test Report No.:		Seite 7 von 11 Page 7 of 11	
Absatz	EN 16051-2:2012	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation
4.2.4.2. 1	<p>Durability test</p> <p>A total of 5 000 cycles shall be applied. Cycles shall be subdivided by applying:</p> <ul style="list-style-type: none"> - 4 000 cycles at 1/3 of rated nominal pressure, - 1 000 cycles at rated nominal pressure. <p>Action is performed against the relevant specified pressure by executing the maximum cycle length of the pump.</p> <p>When tested to the 1/3 nominal pressure cycle action shall be stopped for cooling down (to room temperature) after every 500th cycle and after every 50th cycle when tested to nominal pressure.</p> <p>50 % of the cycles shall be executed on a surface with an inclination of 5°.</p>	Test performed and products function well after test.	P
4.2.4.2. 2	<p>Static strength</p> <p>Hand operated air pumps shall be loaded vertically with a quasi-static force of 600 N for a period of 10 s. The force shall be equally distributed to both parts of the handle and applied at the middle of each handle length.</p> <p>Foot operated pumps shall be loaded vertically with a quasi-static force of 750 N for a period of 10 s. The load shall be applied via a loading pad of 50 mm diameter at the centre line of the foot plate. The distance from the edge opposite the pivoting point shall be 1/3 of length of the foot plate. For air pumps without a hinge the load shall be applied at the centre point of the foot plate.</p>	Product can hold required test force without failure.	P
4.2.5	Displaced volume against atmospheric pressure		
4.2.5.1	<p>Requirements</p> <p>The rated displaced volume shall comply to the real displaced volume, if the pumps are loaded with 600 N respectively with 750 N.</p>	Volume test performed according to 4.2.5.2. Displaced volumes are acceptable.	P

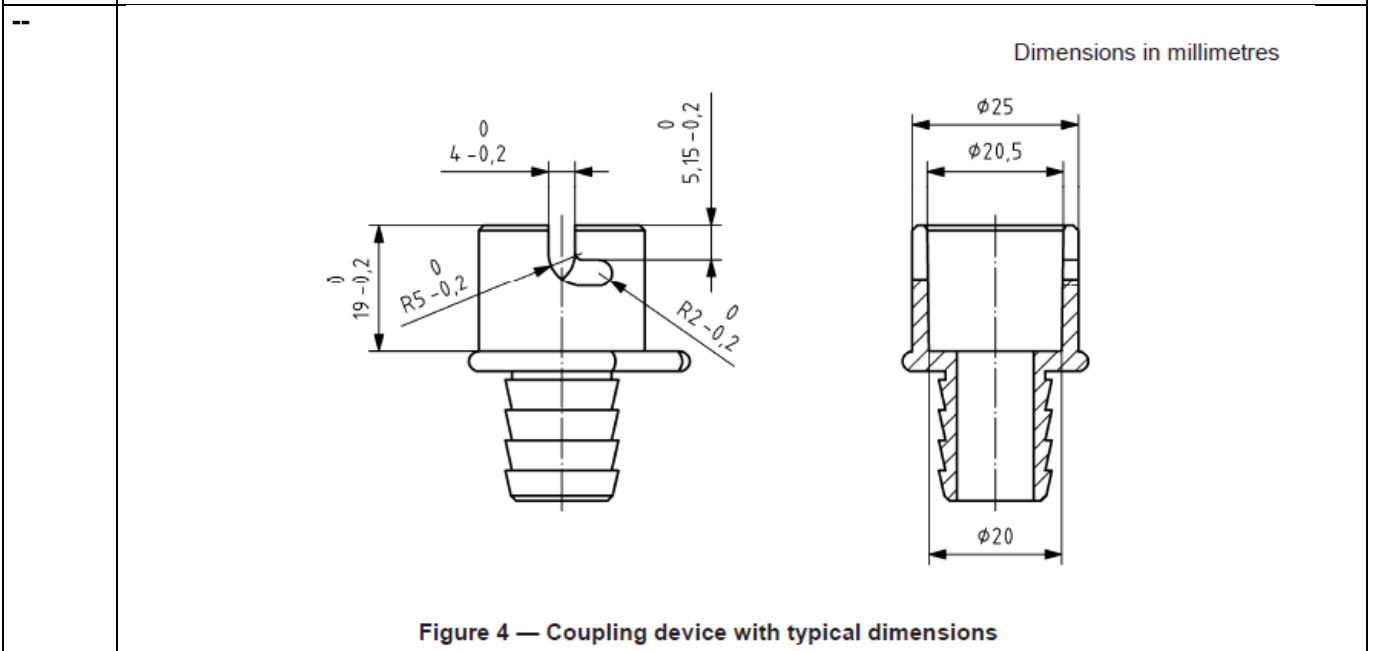
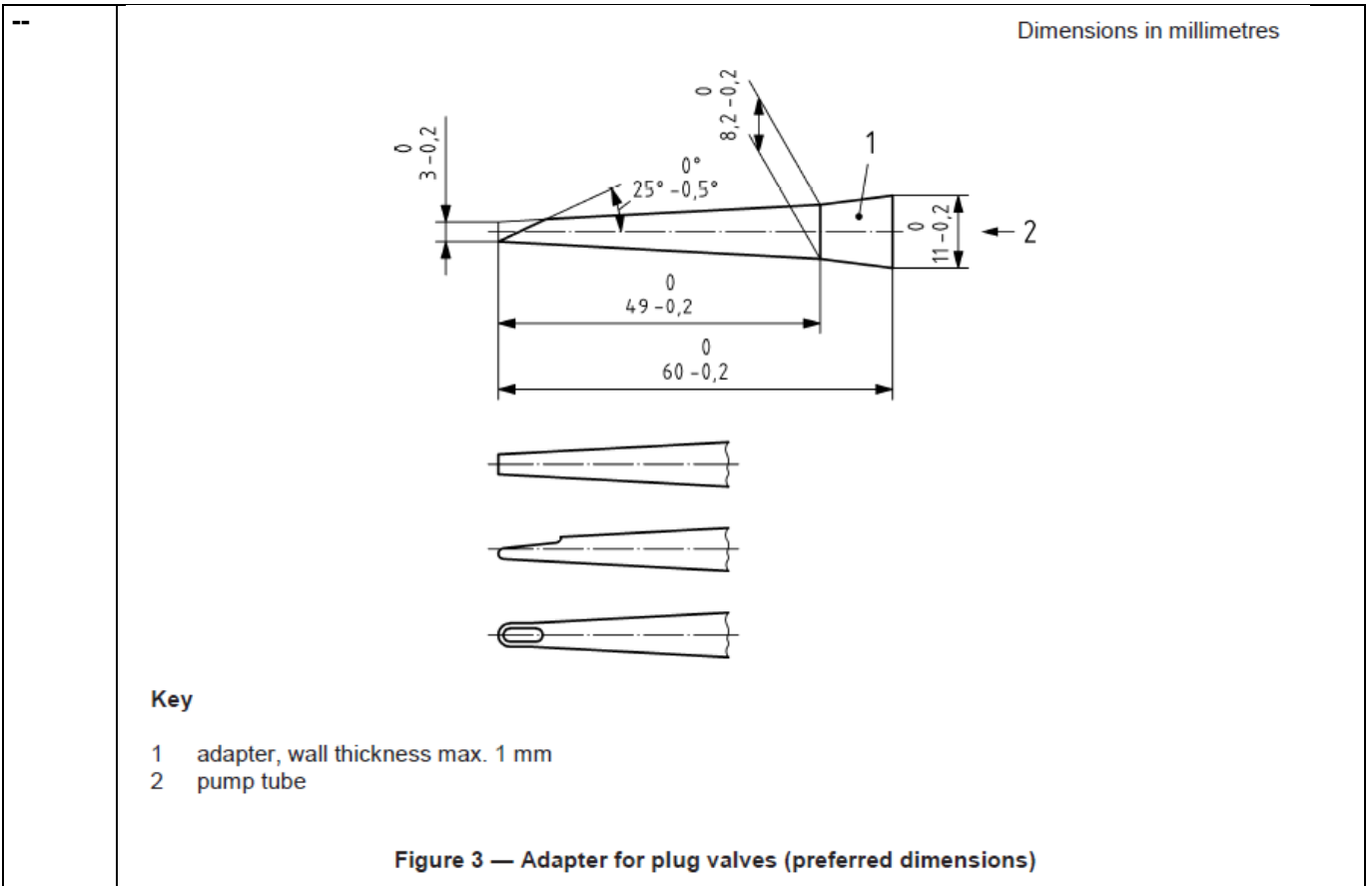
Prüfbericht-Nr.: 50312857 001 <i>Test Report No.:</i>		Seite 8 von 11 <i>Page 8 of 11</i>	
Absatz	EN 16051-2:2012	Messergebnisse - Bemerkungen	Bewertung
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4.2.5.2	<p>Testing</p> <p>The air pump shall be filled with water and operated under water. The amount of water pumped out of the pump per cycle shall be measured and evaluated as intermediate displaced volume.</p> <p>The final displaced volume is calculated as the mean value of 10 cycles.</p> <p>For double stroke pumps the displaced volume is calculated by considering each active stroke.</p>	<p>P3046: Displaced volume is 1.7L/cycle. When loaded with 600 N tested volume is 1.7L/cycle.</p> <p>P3137: Displaced volume is 1.8L/cycle. When loaded with 600 N tested volume is 1.8L/cycle.</p>	P
4.2.6	<p>Adapters and interface dimensions</p> <p>See requirements and dimensions in Clause 5.</p>		
4.3	<p>Marking and labelling</p> <p>Air pumps shall have a type plate providing the data below:</p> <ul style="list-style-type: none"> - manufacturer and/or distributor; - nominal displaced volume in l per stroke and/or cycle; - nominal pressure in bar. <p>Compliance of air pumps with this standard may be expressed by the manufacturer in his own responsibility (self declaration) with reference to this standard.</p>	<p>Mentioned. Mentioned.</p> <p>Mentioned.</p> <p>Mentioned.</p> <p>Marking tested acc. to EK5/13-11, the result is positive.</p>	P

Prüfbericht-Nr.: 50312857 001 <i>Test Report No.:</i>		Seite 9 von 11 Page 9 of 11	
Absatz	EN 16051-2:2012	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / <i>Requirements - Tests</i>	<i>Measuring results - Remarks</i>	<i>Evaluation</i>
5	<p>Adapter for plug valves and valve/pump connection with twist lock closure</p> <p>The typical adapter for connecting the pump with the plug valves of the respective reference sizes "small/medium/ large" (see EN 16051-1:2012, Table 2 and Figure 2) shall have the external dimension as shown in Figure 3:</p> <p>Adapters with other designs meeting the functional and compatibility requirements of this standard are acceptable.</p> <p>The valve shall allow the insertion of the adapter (see Figure 3) for full inflation and deflation according to EN 16051-1:2012, Table 2 and Figure 2.</p> <p>The coupling device receiving the adapters is shown in Figure 4.</p> <p>Dimensions for valve/pump connection with twist lock closure in accordance with Figure 5.</p>	<p>The adapters have different construction. They meeting the functional and compatibility requirements of this standard.</p>	P

Prüfbericht-Nr.: 50312857 001
Test Report No.:

Seite 10 von 11
Page 10 of 11

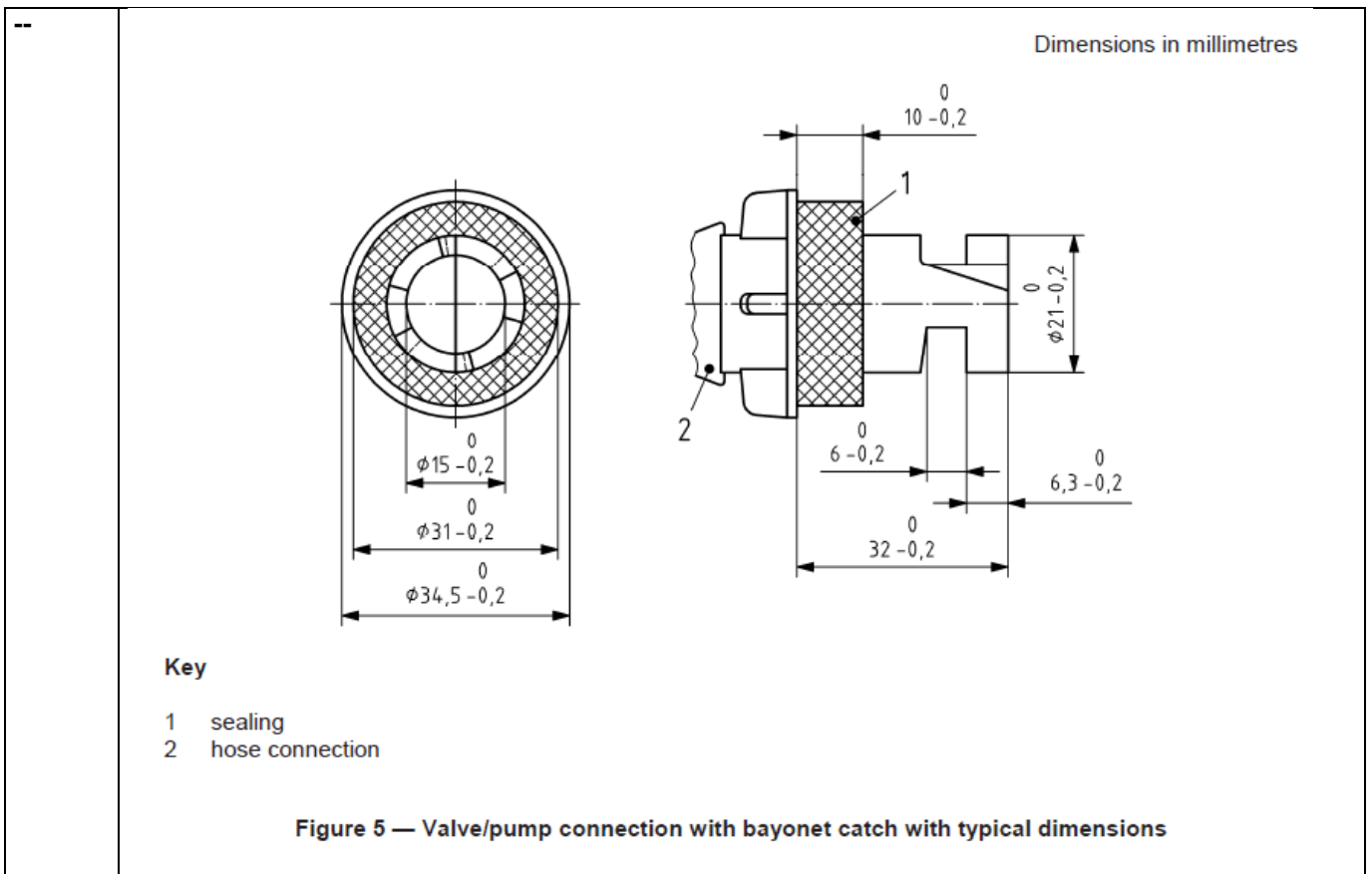
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Prüfbericht-Nr.: 50312857 001
Test Report No.:

Seite 11 von 11
Page 11 of 11

Absatz	EN 16051-2:2012	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation



-END-

ATTACHMENT 1 OF TEST REPORT 50312857 001

QMF-OD-32016SHG

Material list for PAH risk assessment; Only materials accessible without tools

Product designation: Hand Pump (P3046, P3137)

Certificate No.: S 50447980 0001

Test report No.: 50312857 001

Material / Component #	Location / Function of the material	Name / Description of the material	PAH relevant 1)	Evidence attached. Institute, report no., date	Category	Smell	Rigidity	Colour	Chem. test needed?	Test result (within the given limits)
1	Transparent cover M001	Plastic / white	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TUV Rheinland(Shanghai) Co., Ltd. 0244189264a3 04.12.2019	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Soft <input type="checkbox"/> Flexible <input checked="" type="checkbox"/> Rigid	<input type="checkbox"/> Black or dark-colored (Black) <input checked="" type="checkbox"/> White or light-colored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> passed <input type="checkbox"/> failed
2	Handle M002	Plastic / Black	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TUV Rheinland(Shanghai) Co., Ltd. 0244189264a3 04.12.2019	<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Soft <input type="checkbox"/> Flexible <input type="checkbox"/> Rigid	<input checked="" type="checkbox"/> Black or dark-colored (Black) <input type="checkbox"/> White or light-colored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> passed <input type="checkbox"/> failed
3	Large pipe M003	Plastic / Black	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TUV Rheinland(Shanghai) Co., Ltd. 0244189264a3 04.12.2019	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Soft <input type="checkbox"/> Flexible <input checked="" type="checkbox"/> Rigid	<input checked="" type="checkbox"/> Black or dark-colored (Black) <input type="checkbox"/> White or light-colored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> passed <input type="checkbox"/> failed
4	Coating M004	Plastic + printing + paper + adhesive/ transparent + white / black	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TUV Rheinland(Shanghai) Co., Ltd. 0244189264a3 04.12.2019	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Soft <input type="checkbox"/> Flexible <input type="checkbox"/> Rigid	<input type="checkbox"/> Black or dark-colored (Black) <input checked="" type="checkbox"/> White or light-colored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> passed <input type="checkbox"/> failed
5	Base M005	Plastic / Black	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TUV Rheinland(Shanghai) Co., Ltd. 0244189264a3 04.12.2019	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Soft <input type="checkbox"/> Flexible <input checked="" type="checkbox"/> Rigid	<input checked="" type="checkbox"/> Black or dark-colored (Black) <input type="checkbox"/> White or light-colored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> passed <input type="checkbox"/> failed
6	Hose M023	Plastic / Black	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TUV Rheinland(Shanghai) Co., Ltd. 0244189264a3 04.12.2019	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Soft <input type="checkbox"/> Flexible <input type="checkbox"/> Rigid	<input checked="" type="checkbox"/> Black or dark-colored (Black) <input type="checkbox"/> White or light-colored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> passed <input type="checkbox"/> failed
7	Air valve connector M024	Plastic / Black	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	TUV Rheinland(Shanghai) Co., Ltd. 0244189264a3 04.12.2019	<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Soft <input type="checkbox"/> Flexible <input checked="" type="checkbox"/> Rigid	<input checked="" type="checkbox"/> Black or dark-colored (Black) <input checked="" type="checkbox"/> White or light-colored	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> passed <input type="checkbox"/> failed



我在这里声明，如下所列内容为在我司申请 TUV 证书产品中的材料和随附 PAHs 测试报告中材料一致。

I herewith declare that the below listed materials are used in our product submitted to GS-certification and conform with the attached PAHs test reports.

地点/Place _____, 时间/Date _____

 申请人盖章和签名 (Applicant's seal and legally binding signature)

Risk assessment for the above mentioned product indicates PAH relevance :

Yes ¹⁾

No

Short statement

 Ricky Wang / PE _____