

# Test report

**Number** T211-0991/25

Project file: C20251900

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Pages: 32

**Product:** IP44 frame for socket-outlet

**Type reference:** art.62344.x; art.E62344.x

**Ratings:** IP44

**Trademark:** ALING - CONEL

**Applicant:** ALING – CONEL d.o.o.  
Železnička 10, 21432 Gajdobra, Serbia

**Manufacturer:** ALING – CONEL d.o.o.  
Železnička 10, 21432 Gajdobra, Serbia

**Place of manufacture:** ALING – CONEL d.o.o.  
Železnička 10, 21432 Gajdobra, Serbia

## Summary of testing

**Testing method:** Clauses 8, 10, 13, 16, 17, 24, 25, 28 of IEC 60884-1:2022

**Testing location:** SIQ Ljubljana  
Mašera-Spasičeva ulica 10, SI-1000 Ljubljana, Slovenia

**Remarks:** Date of receipt of test items: 2025-08-19  
Number of items tested: 3  
Date of performance of tests: (2025-08-20) – (2025-10-21)  
The test results presented in this report relate only to the items tested.  
The test items were tested in the condition as received.  
The product complies with the requirements of the testing methods.

**Tested by:** Nejc Krajnik

**Approved by:** Tibor Kokelj

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## 1 GENERAL PRODUCT INFORMATION

art.62344.x and art.E62344.x are complets made of (decorative) cover frame, lid and gasket that are intended to be sold separately and provide IP44 protection in case mounted as described by manufacturer in manual together with the following socket-outlets:

- art.6030.x
- art.E630.x

All above mentioned socket-outlets are separately approved according to IEC 60884-1:2022. In this report only gasket and cover frame with lid needed for IP44 are assessed.

IP44 protection index is only achieved when socket-outlet is mounted vertically and lid closed.

The IP44 test (clause 16.2.2) was performed on smooth wall.

art.62344.x is part of PRESTIGE family of products and art.E62344.x is part of EON family of products.

Explanation of colour codes (.x): 0 – white, 2 – graphite, 3 – dark red, 9 – beige, S - silver, E1 - soft black.

History sheet			
Report No.	Date	Change	Revision No.
T211-0991/25	2025-10-22	Initial Test Report issued.	—

Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the test method, when comparing the measurement result with the applicable limit according to the specification in the test method. »Pass/Fail« decisions on conformity are made based on "simple acceptance" without applying the measurement uncertainty (ISO/IEC Guide 98-4:2012, 8.3.1.2).

## 2 TEST REPORT

Possible test case verdicts:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P
- test object does not meet the requirement	F

IEC 60884-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>8</b>	<b>MARKING</b>		<b>P</b>
<b>8.1</b>	<b>General</b>		<b>P</b>
	Accessories marked as follows		P
	- rated current (A) .....		N/A
	- rated voltage (V) .....		N/A
	- symbol for nature of supply .....		N/A
	- name, trademark or identification mark of manufacturer's or responsible vendor's name .....	Aling – Conel logo	P
	- type reference .....	Moulded on cover frame	P
	- degree of protection (first characteristic numeral) if higher than 2 .....	IP44 marked on lid	P
	- degree of protection (second characteristic numeral) if higher than 0 .....	IP44 marked on lid	P
	- degree of protection (first characteristic numeral) higher than 4 for fixed socket outlet in which case the second characteristic numeral shall also be marked .....	IP44 marked on lid	P
	- degree of protection (second characteristic numeral) higher than 2 for fixed socket outlet in which case the first characteristic numeral shall also be marked . :	IP44 marked on lid	P
	Socket-outlets with screwless-type terminals marked with the following:		N/A
	- the length of insulation to be removed .....		N/A
	- an indication of the suitability to accept rigid conductors only (if any) .....		N/A
<b>8.3</b>	<b>Particular requirements for fixed socket-outlets</b>		<b>N/A</b>
	Marking placed on the main part		N/A
	- rated current, rated voltage and nature of supply		N/A
	- identification mark of the manufacturer or of the responsible vendor		N/A
	- length of insulation to be removed, if any		N/A
	- indication of the suitability to accept rigid conductors only for screwless-type terminals for those socket-outlets having this restriction	r	N/A
	- type reference		N/A
	Cover plates necessary for safety purposes and intended to be sold separately: marked with the manufacturer's or responsible vendor's name, trademark or identification mark and type reference		P
	IP code, if applicable: marked so as to be easily discernible	IP44 marked on lid	P
	Fixed socket-outlets classified according to 7.2.5.2: identified by a triangle visible after installation unless they have an interface configuration different from that used in normal circuits .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>8.6</b>	<b>IP code marking for surface-type mounting boxes forming an integral part of socket-outlets</b>		<b>P</b>
	Surface-type mounting boxes forming an integral part of socket-outlets having an IP code higher than IP4X, or higher than IPX2, the IP code marked on the outside of its associated enclosure so as to be easily discernible	Marked on lid	P
<b>8.8</b>	<b>Durability</b>		<b>P</b>
	Marking easily legible, durable and indelible	Laser engraved; moulded	P
	Inspection using normal or corrected vision, without additional magnification		P
	Test, if necessary, is done by:		N/A
	- rubbing the mark for 15 s with cotton cloth soaked with water - rubbing the mark for 15 s with cotton cloth soaked with n-hexane 95 %		N/A
	Rubbing started immediately after soaking the piece of cotton		N/A
	Compression force of $(5 \pm 1)$ N applied at a rate of approximately one cycle per second		N/A
	Compression force applied by means of a test piston having the dimensions specified in Figure 5		N/A
	Test piston made of an elastic material inert to test liquids and having a Shore-A hardness of $47 \pm 5$		N/A
<b>10</b>	<b>PROTECTION AGAINST ELECTRIC SHOCK</b>		<b>P</b>
<b>10.1</b>	<b>General</b>		<b>P</b>
	Accessories shall ensure protection against electric shock		P
<b>10.2</b>	<b>Accessibility of live parts during normal use</b>		<b>P</b>
	Plugs when engaged, fixed and portable socket-outlets designed and constructed that when they are mounted and or wired as for normal use, live parts are not accessible, even after removal of parts which can be removed without the use of a tool	Not possible to touch live parts when mounted as prescribed by manufacturer	P
	Live parts of plugs no accessible when it is in partial or complete engagement		P
	Compliance checked by test:		P
	- specimen mounted as for normal use		P
	- fitted with conductors smallest nominal cross-sectional area		P
	- then with conductors largest nominal cross-sectional area		P
	Table 4 screw-type terminals		P
	Table 8 screwless-type terminals		N/A
	Test probe B of IEC 61032 applied in every position		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Plugs are partially and complete engaged in socket-outlets		P
	Accessories with elastomeric or thermoplastic material: additional test carried out at $(35 \pm 2) ^\circ\text{C}$ with test probe 11 of IEC 61032 (75 N for 1 min)		P
	During the test: accessories do not deform, and live parts does not accessible		P
	Plugs and portable socket-outlets pressed with a force of 150 N for 5 min as shown in Figure 6: specimens do not show deformation		P
<b>10.3</b>	<b>Requirements for accessible parts of accessory during normal use</b>		<b>P</b>
10.3.1	Accessible parts made of insulating materials, with exception for:		P
	- small screws and the like, isolated from live parts, used for fixing main parts, covers, cover plates or other parts		P
	- covers, cover plates, other parts of fixed socket-outlets and accessible parts of portable socket-outlets and plugs of metal, comply with 10.3.2 or 10.3.3		N/A
	- earthing pins, earthing straps		P
	- current carrying pins and metal shoulders around pins of plugs		P
10.3.2	Cover, cover plates, other parts of metal protected by additional insulation made by insulating linings or insulating barriers. They are either:		N/A
	- be fixed in such a way that they cannot be removed without being permanently damaged, or		N/A
	- be so designed that: <ul style="list-style-type: none"> <li>cannot be replaced in an incorrect position</li> </ul>		N/A
	<ul style="list-style-type: none"> <li>if omitted the accessories are inoperable or incomplete</li> </ul>		N/A
	<ul style="list-style-type: none"> <li>no risk of accidental contact between live parts and metal covers, cover plates, other parts, e.g., fixing screws, even if a conductor should come away from its terminal</li> </ul>		N/A
	<ul style="list-style-type: none"> <li>creepage, clearance distances becoming less than values of Table 26</li> </ul>		N/A
	<ul style="list-style-type: none"> <li>comply with Clauses 17 and 27</li> </ul>		N/A
10.3.3	Earthing of metal cover or cover plates made with fixing screws or other integral means: connection of low resistance		N/A
	Creepage and clearance distances between live pins of a plug when fully inserted and the earthed metal cover of a socket-outlet comply with item 2 and 7 of Table 26		N/A
<b>10.4</b>	<b>Single-pole insertion</b>		<b>N/A</b>
	Contact between a pin of a plug and a live socket-contact of a socket-outlet not possible while any other pin is accessible		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Compliance checked by manual test and by means of gauges (most unfavourable dimensions). Tolerances as specified in Table 3		N/A
	Accessories with elastomeric or thermoplastic material: test carried out at $(35 \pm 2) ^\circ\text{C}$		N/A
	Socket-outlets with enclosure or bodies of rubber or polyvinyl chloride: test carried out with a force of 75 N for 1 min		N/A
	Fixed socket-outlets provided with metal covers or cover plates: clearance of at least 2 mm required between a pin and a socket-contact when another pin(s) is(are) in contact with the metal covers or cover plates (mm).....:		N/A
	Single-pole insertion prevented by the use at least:		N/A
	- a large cover or cover plate		N/A
	- other means (e.g., shutters)		N/A
<b>10.5</b>	<b>Shuttered socket-outlets</b>		N/A
	Constructed that live parts not accessible, without a plug in engagement, with the gauges shown in Figures 7 and 8		N/A
	They do not touch live parts when applied to the entry holes corresponding to the live contact.		N/A
	Live contacts automatically screened when the plug is withdrawn		N/A
	Shutters so designed that a plug is inserted with the same movement in a socket-outlet with shutters as in a socket-outlet without shutters		N/A
	Means cannot easily be operated by anything other than a plug and not depend upon parts which are liable to be lost		N/A
	Gauge of Figure 7		N/A
	- applied to the entry holes corresponding to live contacts with a force of 20 N		N/A
	- most unfavourable position		N/A
	- successively in three directions, to the same place		N/A
	- for approximately 5 s in each of three directions		N/A
	- it does not be rotated		N/A
	- it is applied in such a way that the 20 N force is maintained.		N/A
	- moving the gauge from one direction to the next, no force is applied but the gauge is not withdrawn		N/A
	Gauge of Figure 8, applied with a force of 1 N		N/A
	- in three directions, for 5 s in each direction		N/A
	- independent movements		N/A
	- withdrawing the gauge after each movement		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Accessories with elastomeric or thermoplastic material: test carried out at $(35 \pm 2) ^\circ\text{C}$		N/A
<b>10.6</b>	<b>Deformation of earthing contacts</b>		N/A
	Earthing contacts of a socket-outlet designed that they cannot be deformed by the insertion of a plug		N/A
	Test plug inserted into the socket-outlet with a force of 150 N for 1 min		N/A
	After this test: socket-outlet still comply with the requirements of clause 9		N/A
<b>10.7</b>	<b>Socket-outlet with increased protection</b>		N/A
	- with or without lid		N/A
	- according to 7.2.1.2		N/A
	- mounted and wired for normal use		N/A
	Test wire of 1 mm diameter (Figure 8) applied with a force of 1 N		N/A
	- on all accessible surfaces		N/A
	- most unfavourable conditions		N/A
	- without a plug inserted		N/A
	- with the lid, if any, open		N/A
	Accessories with elastomeric or thermoplastic material: test carried out at $(35 \pm 2) ^\circ\text{C}$		N/A
	- live parts not accessible		N/A
<b>13</b>	<b>CONSTRUCTION OF FIXED SOCKET-OUTLETS</b>		P
<b>13.1</b>	<b>General</b>		N/A
	Socket-contact assembly have sufficient resilience to ensure adequate contact pressure on plug pins		N/A
	Part of socket-contact assembly ensure metallic opposing contacts at least on two sides of each pins		N/A
<b>13.2</b>	<b>Requirements for socket-contacts and pins</b>		N/A
	- resistant to corrosion and abrasion		N/A
	Socket-contact and pin(s) of socket-outlet which are made of copper or copper alloy, as specified in 26.5, are considered as complying with this requirement		N/A
	Compliance by inspection or by chemical analysis		N/A
	The pin(s) of socket-outlets so constructed in such a way that the mechanical strength of the pin(s) does not depend on the plastic material		N/A
	Compliance is checked by inspection and in case of doubt by the tests of 14.2 and Clause 21 on a new set of specimens without plastic		N/A
<b>13.3</b>	<b>Insulating linings, barriers and the like</b>		P
	adequate mechanical strength		P
<b>13.4</b>	<b>Connection of conductors</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Socket-outlets constructed as to permit:		N/A
	- easy introduction into the terminal and reliable connection of the conductors in the terminals, except for lead wires of pilot lights		N/A
	- easy fixing of the main part to a wall or in a mounting box		N/A
	- correct positioning of the conductors		N/A
	- adequate space between the underside of the main part and the surface on which the main part is mounted		N/A
	- adequate space between the sides of the main part and the enclosure (cover or box)		N/A
	Socket-outlets having screwless-type terminals or insulation-piercing terminals, constructed that the connecting and/or disconnecting means of the screwless-type terminals cannot be activated by the conductors during and after installation		N/A
	Compliance checked by inspection / test		N/A
	- a solid copper conductor having the smallest cross-sectional area, as specified in 12.3.2 (mm <sup>2</sup> ) is pushed into the terminal		N/A
	- the test probe 1 of IEC 61032 is pushed against the connecting mean with 120 N, in the direction opposite to the mounting direction (Fig. 15a).		N/A
	During the application of force, the conductor is pulled, 1 min, in the direction of the longitudinal axis of the conductor space.		N/A
	The conductor do not come out.		N/A
	Allowed exert the resulting force if the axes deviates by more than 20° (Fig. 15b)		N/A
	- If the angle is greater than 60° or		N/A
	- If it is not possible to exert a force onto the connecting/disconnecting device, the product is deemed to comply with the requirements without further tests.		N/A
	In addition, socket-outlets classified to 7.2.4.1 Design A: permit easy positioning and removal of the cover or cover plate, without displacing the conductors or activating the connecting and/or disconnecting means of screwless-type terminals or insulation-piercing terminals.		N/A
	Compliance is checked by inspection and by an installation test with conductors of the largest nominal cross-sectional area specified in Table 3 4 (mm <sup>2</sup> ) .:		N/A
<b>13.5</b>	<b>Engagement of plugs</b>		N/A
	Socket-outlets designed that full engagement of associated plugs is not prevented by any projection from their engagement face		N/A
	Gap between the engagement face of the socket-outlet and the plug: not exceed 1 mm		N/A
<b>13.6</b>	<b>Covers provided with bushings for the entry holes for the pins</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- not possible to remove them from the outside or for them to become detached inadvertently from the inside when the cover is removed		N/A
<b>13.7</b>	<b>Protection against electric shock provided by covers, cover plates</b>		P
13.7.1	- held in place at two or more points by effective fixings		N/A
	- fixed by means of a single fixing, for example, by a screw, provided that they are located by another means (captive)	Screw used	P
	Fixings of covers or cover-plates of socket-outlets of design A serve to fix the main parts: there are means to maintain the base in position, even after removal of the covers or cover-plates		N/A
13.7.2	Covers or cover-plates whose fixings are of the screw-type:		P
	Compliance checked by inspection only		P
13.7.2.3	Covers or cover-plates whose fixing is not dependent on screws and whose removal is obtained by applying a force in a direction approximately perpendicular to the mounting / supporting surface (Table 14)..... :		N/A
	Compliance checked, when their removal may give access, with the standard test finger		N/A
	a) to live parts: by the test of 24.13		N/A
	b) to non-earthed metal parts separated from live parts in such a way that creepage distances and clearances have the values shown in Table 26: by the test of 24.14		N/A
	c) only to: <ul style="list-style-type: none"> <li>parts of insulating material, or</li> <li>earthed metal parts, or</li> <li>metal parts separated from live parts in such a way that creepage distances and clearances have twice the values shown in Table 26, or</li> <li>live parts of SELV circuits not greater than 25 V AC or 60 V DC: by the test of 24.15</li> </ul>		N/A
13.7.4	Covers or cover-plates the fixing of which is not dependent on screws and whose removal is obtained by using a tool, in accordance with the manufacturer's instructions given in an instruction sheet or in other documentation		N/A
	Compliance checked, when their removal may give access, with the standard test finger (Table 14)		N/A
	a) to live parts: by the test of 24.13		N/A
	b) to non-earthed metal parts separated from live parts in such a way that creepage distances and clearances have the values shown in Table 26, by the test of 24.14		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	c) only to: <ul style="list-style-type: none"> <li>parts of insulating material, or</li> <li>earthed metal parts, or</li> <li>metal parts separated from live parts in such a way that creepage distances and clearances have twice the values shown in Table 26, or</li> <li>live parts of SELV circuits not greater than 25 V AC or 60 V DC: by the test of 24.15</li> </ul>		N/A
<b>13.8</b>	<b>Cover-plate intended for a socket-outlet with earthing contact</b>		N/A
	- not interchangeable with a cover-plate intended for a socket-outlet without earthing contact		N/A
<b>13.9</b>	<b>Surface-type socket-outlets</b>		N/A
	- no free openings in their enclosures		N/A
	- drain holes, small gaps, cables, earthing contacts, grommets, membranes, knockouts are neglected provided they do not compromise the declared IP rating		N/A
	- have not bare current-carrying strips at the back		N/A
<b>13.10</b>	<b>Means for mounting the socket-outlet</b>		P
	Screws or other means for mounting the socket-outlet on a surface in a box or enclosure: easily accessible from the front		P
	Fixing means do not serve any other fixing purpose		P
<b>13.11</b>	<b>Multiple socket-outlets with a common base</b>		N/A
	- provided with fixed links for the interconnection of the contacts in parallel		N/A
	- fixing of the links independent from the connection of the supply wires		N/A
<b>13.12</b>	<b>Multiple socket-outlets with separate bases</b>		N/A
	Multiple socket-outlets, comprising separate bases: correct position of each base ensured		N/A
	Fixing of each base independent of the fixing of the combination to the mounting surface		N/A
<b>13.13</b>	<b>Mounting plate of surface-type socket-outlets</b>		N/A
	- adequate mechanical strength		N/A
<b>13.14</b>	<b>Lateral strain imposed by equipment</b>		N/A
	Socket-outlets withstand the lateral strain imposed by equipment likely to be introduced into them		N/A
	Socket-outlets 16 A 250 V: test made 4 times with the socket-outlet turned through 90°, 5 N for 1 min (device shown in fig. 16)		N/A
	During the test: device not become disengaged from the socket-outlet		N/A
	After the test:		N/A
	- socket-outlets comply with the requirements of sub-clauses 22.2 and 22.3		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>13.15</b>	<b>Lampholders</b>		N/A
	Socket-outlets are not an integral part of lampholders		N/A
<b>13.16</b>	<b>Surface-type socket-outlets having IP code higher than IP20</b>		N/A
	Surface-type socket-outlets having an IP code higher than IP20 are according to their IP classification when installed in accordance with the manufacturer's instructions and without a plug in engagement		N/A
	Surface-type socket-outlets having an IP code from IPX4 to IPX6 have provision for opening a drain hole		N/A
	Socket-outlets with a drain hole: drain hole is not less than 5 mm in diameter, or 20 mm <sup>2</sup> in area with a width and a length of not less than 3 mm .....		N/A
	Drain hole: effective		N/A
	Lid springs (if any): of corrosion-resistant material (bronze or stainless steel) .....		N/A
<b>13.17</b>	<b>Earthing pins</b>		N/A
	Earthing pins: adequate mechanical strength		N/A
	Not solid pins: compliance checked by inspection and by test of 14.2 made after the tests of clause 21		N/A
<b>13.18</b>	<b>Rotation of contacts</b>		N/A
	Earthing contacts, phase contacts and neutral contacts: locked against rotation		N/A
	- when the product is ready for the wiring do not possible to be removed without the use of a tool		N/A
<b>13.19</b>	<b>Metal strips of the earthing circuit</b>		N/A
	Metal strips of the earthing circuit: no burrs which might damage the insulation of the supply conductors		N/A
<b>13.20</b>	<b>Installation in boxes</b>		N/A
	Socket-outlets to be installed in a box: designed that the conductor ends can be prepared after the box is mounted in position, but before the socket-outlet is fitted in the box		N/A
<b>13.21</b>	<b>Inlet openings</b>		N/A
	Inlet openings: allow the introduction of the conduit or the sheath of the cable		N/A
	Surface-type socket-outlets:		N/A
	the conduit or sheath of the cable can enter at least 1 mm into the enclosure		N/A
	inlet opening for conduit entries, or at least two of them if there are more than one, capable of accepting conduit sizes of 16, 20, 25 or 32 according to IEC 60423:2007 or a combination of at least two of any of these sizes		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	inlet opening for cable entries capable of accepting cables having the dimensions specified in Table 15 or be as specified by the manufacturer: rated current (A); Limits of external dimensions of cable min/max (mm) .....		N/A
<b>13.22</b>	<b>Fixing of membranes (grommets)</b>		N/A
	Membranes (grommets) in inlet openings: reliably fixed and not displaced by the mechanical and thermal stresses occurring in normal use		N/A
	Test on membranes subjected to the ageing treatment specified in 16.1 and assembled in the accessories		N/A
	Accessories placed at $(40 \pm 2) ^\circ\text{C}$ for 2 h. After this period, a force of 30 N applied for 5 s by test probe 11 of IEC 61032. During the test: no deformation		N/A
	Membranes likely to be subjected to an axial pull: axial pull of 30 N applied for 5 s. During the test: membranes not become detached		N/A
	After the test: no harmful deformation, cracks or similar damage		N/A
	Test repeated with membranes not subjected to any treatment		N/A
<b>13.23</b>	<b>Material for membranes</b>		N/A
	Membranes in inlet openings: introduction of the cables into the accessory permitted when the ambient temperature is low		N/A
	Test on membranes not subjected to the ageing treatment specified in 16.1 and assembled in the accessories		N/A
	Accessories kept at $(-15 \pm 2) ^\circ\text{C}$ for 2 h: possibility to introduce cables of the largest diameter through membranes		N/A
	After the test of 13.22 and 13.23: no harmful deformation, cracks or similar damage		N/A
<b>16</b>	<b>RESISTANCE TO AGEING, PROTECTION PROVIDED BY ENCLOSURES, AND RESISTANCE TO HUMIDITY</b>		<b>P</b>
<b>16.1</b>	<b>Resistance to ageing</b>		<b>P</b>
	Accessories are resistant to ageing		P
	For accessories having a lid, the lid is closed during the test		P
	Portable socket-outlets: the plug of the same system having the same rated current as the socket-outlet inserted into the socket-outlet during the test		N/A
	Accessories subjected to a test in a heating cabinet at $(70 \pm 2) ^\circ\text{C}$ for seven days (168 h)		P
	After the tests, the specimens show:		P
	- no crack visible with normal or corrected vision without additional magnification		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- no sticky or greasy material		P
	- no trace of cloth (forefinger pressed with 5 N)		P
	- no damage		P
	- portable socket-outlets: contact pressure of the contact assembly checked as specified in subclause 22.3 with the single-pin gauge. It do not fall out from the contact assembly within 30 s.		N/A
	- fixed socket-outlet: test repeated on a new set of specimen. Contact pressure of the contact assembly checked as specified in subclause 22.2.3 with the single-pin gauge. It do not fall out from the contact assembly within 30 s.		P
<b>16.2</b>	<b>Protection provided by enclosures</b>		<b>P</b>
16.2.1	General		P
	Enclosures provide protection against access to hazardous parts, harmful effects due to ingress of solid foreign objects and water, in accordance with the IP designation of the accessory	IP44	P
16.2.2	Protection against access to hazardous parts and against harmful effects due to ingress of solid foreign objects		P
16.2.2.1	General		P
	Accessories and their enclosures provide a degree of protection against access to hazardous parts and against harmful effects due to ingress of solid foreign objects		P
	Fixed socket-outlets: mounted as in normal use on a vertical surface		P
	Flush-type and semi-flush type socket-outlets: mounted in an appropriate box according to the manufacturer's instructions		P
	Accessories with screwed glands or membranes fitted and connected with cables within the connecting range specified in Table 4.		N/A
	- largest cross-sectional area (mm <sup>2</sup> ); type of cable (Table 20) .....	... x ... mm <sup>2</sup> ; 60... IEC	-
	- smallest cross-sectional area (mm <sup>2</sup> ); type of cable (Table 20) .....	... x ... mm <sup>2</sup> ; 60... IEC ..	-
	Glands tightened with a torque equal to 2/3 of the torque applied during the test of 24.7 (Nm) .....	... Nm	-
	Screws of the enclosure tightened with a torque equal to 2/3 of the torque given in Table 7 (Nm) .....	... Nm	-
16.2.2.2	Protection against access to hazardous parts		P
	Appropriate test performed as specified in IEC 60529 (see also clause 10)	IP4X – tested with closed lid	P
16.2.2.3	Protection against harmful effects due to ingress of solid foreign objects		P
	Appropriate test performed as specified in IEC 60529	IP4X – tested with closed lid	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Test on accessories with IP5X (considered to be of category 2): dust not penetrated in a quantity to interfere with satisfactory operation or to impair safety		N/A
	Test on accessories with IP6X (considered to be of category 1): dust do not penetrate		N/A
16.2.3	Protection against harmful effects due to ingress of water		P
	Accessories and their enclosures provide a degree of protection against harmful effects due to ingress of water in accordance with their IP classification	IP44	P
	Appropriate test performed as specified in IEC 60529 under the following conditions:		P
	- Flush-type and semi flush-type socket-outlets: fixed in a vertical test wall according to Figure 18 a) representing the intended use of the flush and semi flush-type socket-outlets, using an appropriate box in accordance with the manufacturer's instruction	Tested on smooth wall	P
	- when manufacturer's instruction specify: 'accessory suitable to be installed on a rough wall', test wall according to Figure 18 b) or Figure 18 c) is used.		N/A
	- test wall: with bricks or plastic; smooth surfaces	Tested on smooth wall	P
	- box mounted in the test wall: fit tight against the wall		P
	- sealing material do not influence sealing properties of specimen tested		P
	- Surface-type socket-outlets mounted as for normal use in a vertical position		N/A
	- fitted with cables or conduits or both in accordance with the manufacturer's instructions		P
	- cables have conductors of the largest and smallest nominal cross-sectional area (Table 4)		P
	- test wall: smooth surface (Figure 18 a)		P
	- end of cable sheath, raised 2 mm		N/A
	- entry of cable: below		N/A
	Accessories IPX3 IPX4		P
	- test device Figure 19		P
	- rotation axis horizontal and		P
	- on the mounting plane of the test wall		P
	- specimen centre in the middle of rotation axis		P
	- Portable socket-outlets tested on a flat, horizontal surface in a position as in normal use		N/A
	- no strain of flexible cable		N/A
	- fitted with flexible cables (Table 20)		N/A
	- cables have conductors of the largest and smallest nominal cross-sectional area (Table 4)		N/A
	- screws of enclosure tightened with a torque equal to 2/3 of the torque given in Table 7 (Nm) .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- glands tightened with a torque equal to 2/3 of the torque applied during the test of 24.7 (Nm) .....		N/A
	- cable glands not filled with sealing compound		N/A
	Accessory with drain holes opened during the test: any accumulation of water proved by inspection	No drain holes	N/A
	- socket-outlet with IP code less than IPX5 with drain holes, one is opened in the lowest position		N/A
	- socket-outlet with IP code equal or greater than IPX5 with drain holes, they not opened		N/A
	Socket-outlets tested without a plug in engagement	Tested without plug and with lid closed	P
	Plugs tested when in full engagement with:		N/A
	- a fixed socket-outlet		N/A
	- a portable socket-outlet		N/A
	of the same system / same degree of protection against harmful effects due to ingress of water		
	Accessory with drain holes opened during the test: any water entered does not accumulate; it drains away without doing any harm to the complete assembly		
	Specimens withstand an electric strength test specified in 17.3 which is started within 5 min of completion of the IP test	No breakdown	P
<b>16.3</b>	<b>Resistance to humidity</b>		<b>P</b>
	Accessories proof against humidity which may occur in normal use		P
	Compliance checked by a humidity treatment carried out in a humidity cabinet containing air with relative humidity maintained between 91 % and 95 %		P
	Specimens kept in the cabinet for:		P
	- two days (48 h) for accessories having IPX0		N/A
	- seven days (168 h) for accessories having IP>X0		P
	After this treatment the specimens comply with the insulation resistance measurement and the electric strength test specified in Clause 17		P
<b>17</b>	<b>INSULATION RESISTANCE AND ELECTRIC STRENGTH</b>		<b>P</b>
<b>17.1</b>	<b>General</b>		<b>P</b>
	Insulation resistance and electric strength of accessories: adequate Pilot light or electronic devices pole: disconnected		P
<b>17.2</b>	<b>Test for measuring the insulation resistance</b>		<b>P</b>
17.2.1	Insulation resistance: measured 1 min after application of 500 V DC		P
17.2.2	Socket-outlet: the insulation resistance is measured consecutively	See appended Table 17.2.2	P

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Clause	Requirement + Test	Result - Remark	Verdict
17.2.3	Plugs: the insulation resistance is measured consecutively	See appended Table 17.2.3	N/A
<b>17.3</b>	<b>Electric strength test</b>		P
	A sine-wave form voltage applied for 1 min	See appended Table 17.3	P
<b>24</b>	<b>MECHANICAL STRENGTH</b>		P
<b>24.1</b>	<b>General</b>		P
	Accessories, surface mounting boxes, screwed glands and shrouds have adequate mechanical strength		P
<b>24.2</b>	<b>Impact test with pendulum hammer</b>		P
	Fixed socket-outlets, portable multiple socket-outlets and surface-type mounting boxes: hammer test described in IEC 60068-2-75 (test EHA), equivalent mass of 250 g	See appended Table 24.2	P
	Height of fall and parts of enclosures subjected to the impacts specified in Table 23	See appended Table 24.2	P
	After the test: <ul style="list-style-type: none"> <li>- no damage impairing further use</li> <li>- live parts no become accessible as defined in Clauses 10.2 / 10.5</li> <li>- live parts no damage as to impair Cr / Cl distances as defined in Clause 27</li> </ul>		P
	After the test on a lens (window for pilot lights) the lens may be cracked and/or dislodged, but it is not possible to touch live parts with the: <ul style="list-style-type: none"> <li>- test probe B (IEC 61032) under the conditions stated in 10.2</li> <li>- test probe 11 (IEC 61032) under the conditions stated in 10.2, but with a force of 10 N</li> <li>- steel wire of Fig. 8, applied with a force of 1 N, for accessories with increased protection</li> </ul>		N/A
	In case of doubt, it is verified that it is possible to remove and replace external parts such as boxes, enclosures, covers and cover-plates, without these parts or their insulating lining being broken.		N/A
<b>24.3</b>	<b>Tumble barrel test</b>		N/A
	Rewirable portable accessories fitted with the flexible cable specified in 23.2		N/A
	with the smallest nominal cross-sectional area specified in Table 4		N/A
	A free length of approximately 100 mm measured from the outer end of the guard		N/A
	Terminal screws and assembly screws are tightened with a torque equal to two-thirds of that specified in Table 7		N/A
	Non-rewirable portable accessories tested as delivered		N/A
	The flexible cable cut so that a free length of about 100 mm projects from the accessory		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Portable single socket-outlets and plugs: subjected to test Ec: Rough handling shocks, primarily for equipment-type specimens, procedure 2 of IEC 60068-2-31; number of falls:		N/A
	After the test:		N/A
	- no part become detached or loosened;		N/A
	- pins no become so deformed that the plug cannot be introduced into a socket-outlet and also fails to comply with the requirements of 9.1 and 10.4		N/A
	- pins no turn when a torque of 0,4 Nm is applied for 1 min in one direction, then for 1 min in the opposite direction		N/A
	Shutters of socket-outlets tested again according to 10.5 performed at ambient temperature		N/A
<b>24.4</b>	<b>Test for fixed socket-outlets with a main part intended to be mounted directly on a surface</b>		N/A
	Main parts of surface-type socket-outlets are first fixed to a cylinder of rigid steel sheet		N/A
	Cylinder radius equal to 4,5 times the distance between fixing holes (no less than 200 mm)		N/A
	Axes of the holes perpendicular to the axis of the cylinder		N/A
	Axes of the holes parallel to the radius through the centre of the distance between the holes		N/A
	Fixing screws of the base are gradually tightened		N/A
	Torque applied: - 0,5 Nm for screws having a thread diameter up to and including 3 mm - 1,2 Nm for screws having a larger thread diameter.		N/A
	The main parts of socket-outlets are then fixed in a similar manner to a flat steel sheet		N/A
	During and after the tests: no damage		N/A
<b>24.5</b>	<b>Impact test at low temperature</b>		N/A
	Portable single / multiple socket-outlets and plugs subjected to an impact test by means of an apparatus as shown in Figure 30		N/A
	- apparatus, positioned on a pad of sponge rubber 40 mm thick		N/A
	- placed together with the specimens in a freezer at a temperature of $(-15 \pm 2) ^\circ\text{C}$ , for at least 16 h.		N/A
	At the end of this period, the following test is carried out inside the freezer: each specimen, in turn, is placed in the normal position of use as shown in Figure 30, and a weight is allowed to fall from a height of 100 mm. The mass of the falling weight is $(1\,000 \pm 2) \text{ g}$ .		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	After the test: <ul style="list-style-type: none"> <li>- no damage impairing further use</li> <li>- live parts no become accessible as defined in Clauses 10.2 / 10.5</li> </ul> live parts no damage as to impair Cr / Cl distances as defined in Clause 27		N/A
<b>24.6</b>	<b>Compression test</b>		N/A
	Specimens subjected to a compression test		N/A
	<ul style="list-style-type: none"> <li>- temperature of the pressure plate, of the base and of the specimens: <math>23 \pm 2</math> °C</li> <li>- force applied: 300 N.</li> <li>- specimens are first placed in position a), as shown in Figure 6</li> <li>- force is applied for 1 min.</li> <li>- they are then placed in position b),</li> <li>- again, subjected to the force for 1 min</li> </ul>		N/A
	The specimens are removed from the test apparatus and are left to recover for 15 min.		N/A
	After the test: <ul style="list-style-type: none"> <li>- no damage impairing further use</li> <li>- live parts no become accessible as defined in Clauses 10.2 / 10.5</li> </ul> live parts no damage as to impair Cr / Cl distances as defined in Clause 27		N/A
<b>24.7</b>	<b>Torque test for cable glands</b>		N/A
	Screwed cable glands fitted with a cylindrical metal rod		N/A
	Cable glands are then tightened by means of a suitable spanner; the torque shown in Table 24 being applied for 1 min.		N/A
	- diameter of test rod (mm)		N/A
	- type of material (metal / moulded)		N/A
	- torque (Nm)		N/A
	After the test: no damage of glands and enclosures of the specimens		N/A
<b>24.8</b>	<b>Abrasion test on insulating sleeves of plug pins</b>		N/A
	Plug pins provided with insulating sleeves: subjected to the test by means of the apparatus shown in Figure 31.		N/A
	Force on the pin: 4 N		—
	Number of movements: 20 000		—
	Rate of operations: 30 movements per minute		—
	After the test: no damage of pins, insulating sleeve do not have punctured or rucked up		N/A
<b>24.9</b>	<b>Mechanical tests on shutters</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Shuttered socket-outlets: mechanical test carried out on specimens submitted to the normal operation test according to clause 21		N/A
	Force (40 N / 75 N) applied for 1 min against the shutter of an entry hole by means of one pin (N).....:		N/A
	Pin did not come in contact with live parts		N/A
	After the test: no damage		N/A
	A plug complying with corresponding standard sheet is inserted and withdrawn 5 times and the shutters shall operate as intended.		N/A
<b>24.10</b>	<b>Test for multiple portable socket-outlets</b>		N/A
	Mechanical test for multiple portable socket-outlet: 8 falls on concrete floor with the specimens arranged as shown in Figure 32		N/A
	After the test: - no part have become detached or loosened - no damage impairing further use - live parts no become accessible as defined in Clauses 10.2 / 10.5 live parts no damage as to impair Cr / Cl distances as defined in Clause 27		N/A
	Accessories having IP code higher than IPX0 submitted again to the tests as specified in 16.2		N/A
	Shutters of socket-outlets tested again according to 10.5 performed at ambient temperature		N/A
<b>24.11</b>	<b>Retention test for pins</b>		N/A
	Plugs: pull test to verify the fixation of pins in the body of the plug (new specimens)		N/A
	A pull P equal to the maximum withdrawal force (table 19) applied for 1 min on each pin in turn, after the specimen has been placed at $(70 \pm 2) ^\circ\text{C}$ for 1 h (N) .....:		N/A
	After the test: displacement of pins in the body of the plug $\leq 1 \text{ mm}$ (mm) .....:		N/A
<b>24.12</b>	<b>Mechanical test for means for suspension of portable socket-outlets</b>		N/A
24.12.1	Barriers, between the space intended for the suspension means fixed to the mounting surface and the live parts, likely to be subjected to mechanical strain when the portable socket-outlet is suspended on a mounting surface, tested as follows:		N/A
	A steel rod, diameter 3 mm, hemispherical end radius 1,5 mm, is pushed perpendicular to the mounting surface, for 10 s against the barrier, the force being equal to 1,5 times the maximum plug withdrawal force (Table 19)		N/A
	Rod did not pierce the barrier		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
24.12.2	The portable socket-outlet, fitted with a flexible cable, is suspended on the mounting surface, by the same rod as 24.12.1, length sufficient to touch the rear of the barrier		N/A
	A pull equal to the force specified in 23.2 for checking the anchorage is applied to the flexible cable for 10 s (N) .....		N/A
	The portable socket-outlet means for suspension on a mounting surface, do not break in a way which allows live parts to become accessible to the test probe B of IEC 61032		N/A
24.12.3	The portable socket-outlet is suspended on the mounting surface, using a round head screw with shank diameter 3 mm, and is subjected to a pull test with the maximum withdrawal force specified, for the corresponding plug, in Table 19, applied without jerks		N/A
	The pull force is applied for 10 s perpendicular to the engagement face of the socket-outlet giving the greatest strain on the suspension means.		N/A
	The portable socket-outlet means for suspension on a wall do not break in a way which allows live parts to become accessible to the test probe B of IEC 61032.		N/A
<b>24.13</b>	<b>Tests on covers, cover-plates or parts of them according to 13.7.3 a)</b>		N/A
24.13.1	Accessories mounted as for normal use to check the forces necessary to retain or remove covers, cover-plates or parts of them		N/A
	Flush-type socket-outlets are fixed in appropriate mounting boxes		N/A
	Rims of the boxes are flush with the walls		N/A
	Covers or cover-plates are fitted		N/A
	Plugs / portable socket-outlets are fixed so that the force can be applied to the cover, cover-plates or parts of them		N/A
	Locking means which can be operated without the aid of a tool: unlocked.		N/A
24.13.2	Fixed socket-outlets: verification of the retention of covers or cover-plates		N/A
	Forces are gradually applied perpendicular to the mounting surface. The resulting force acting on the centre of the covers, cover-plates, or parts of them is, respectively:		N/A
	<ul style="list-style-type: none"> <li>40 N, for covers, cover-plates or parts of them complying with the tests of 24.16 and 24.17, or</li> <li>80 N, for other covers, cover-plates or parts of them.</li> </ul> (Table 14)		N/A
	Force applied for 1 min. The covers or cover-plates do not come off.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Test repeated on new specimens. The cover or cover-plate being fitted on the wall. A sheet of hard material, $(1 \pm 0,1)$ mm thick, fitted around the supporting frame.		N/A
	After the test, the specimens do not show damage impairing their future use.		N/A
24.13.3	Fixed socket-outlets: verification of the removal of covers or cover-plates		N/A
	Force 120 N gradually applied, perpendicular to the mounting/supporting surfaces, to covers, cover-plates or parts of them by means of a hook placed in turn in each of the grooves, holes, spaces or the like, provided for removing them.		N/A
	Covers or cover-plates come off.		N/A
	Test carried out 10 times on separable parts. Removal force applied to the grooves, holes, or the like provided for removing the separable parts, distributing the application points.		N/A
	Test repeated on new specimens. The cover or cover-plate being fitted on the wall. A sheet of hard material, $(1 \pm 0,1)$ mm thick, fitted around the supporting frame.		N/A
	After the test, the specimens do not show damage impairing their future use.		N/A
24.13.4	Plugs / portable socket-outlets: Force 80 N gradually applied and maintained for 1 min to covers, cover-plates or parts of them. Other parts of the accessory, fixed		N/A
	During the test covers, cover-plates or parts of them do not come off.		N/A
	Test repeated with a force of 120 N.		N/A
	a) rewirable plugs / rewirable portable socket-outlets: cover, cover-plate or parts of them may come off during the test, but the specimen show no damage impairing further use.		N/A
	b) non-rewirable / non-moulded-on accessories: during the test, cover, cover-plate or parts of them may come off but the accessories are permanently useless (see 14.1).		N/A
<b>24.14</b>	<b>Tests on covers, cover-plates or parts of them according to 13.7.3 b)</b>		N/A
	Test carried out as described in 24.13, but applying the forces for the purposes of 24.13.2:		N/A
	<ul style="list-style-type: none"> <li>10 N, for covers, cover-plates complying with the tests of 24.16 and 24.17</li> <li>20 N, for other covers or cover-plates (Table 14)</li> </ul>		N/A
<b>24.15</b>	<b>Tests on covers, cover-plates or parts of them according to 13.7.3 c)</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Test carried out as described in 24.13, but applying the force of 10 N for all covers or cover-plates for the purposes of 24.13.2 (Table 14)		N/A
<b>24.16</b>	<b>Verification of the outline of covers fixed without screws on a mounting surface or supporting surface</b>		N/A
	Gauge of Figure 35 pushed toward each side of each cover or cover-plate which is fixed without screws on a mounting or supporting surface		N/A
	Face B resting on the mounting/supporting surface, with face A perpendicular to it, the gauge applied at right angles to each side under test.		N/A
	Distances between face C of the gauge and the outline of the side under test, measured parallel to face B, do not decrease		N/A
<b>24.17</b>	<b>Verification of grooves, holes and reverse tapers</b>		<b>P</b>
	Gauge of Figure 38, applied with a force of 1 N do not enter more than 1,0 mm from the upper part of any groove, hole or reverse taper, or the like, when the gauge is applied parallel to the mounting / supporting surface and perpendicular to the part under test		P
<b>24.18</b>	<b>Compression test on shrouds of portable socket-outlets</b>		N/A
	Shrouds of portable socket-outlets: compression test at an ambient temperature of $(25 \pm 5) ^\circ\text{C}$		N/A
	Apparatus: two steel jaws, cylindrical face 25 mm radius, width 15 mm, length of 50 mm.		N/A
	Front face of the jaws coincides with the front face of the shroud.		N/A
	Force applied through the jaws: $20 \pm 2 \text{ N}$		N/A
	After 1 min, while the shrouds are still under pressure, dimensions comply with the appropriate standard sheet.		N/A
	Test repeated with the specimen rotated $90^\circ$		N/A
<b>25</b>	<b>RESISTANCE TO HEAT</b>		<b>P</b>
<b>25.1</b>	<b>General</b>		<b>P</b>
	Accessories and surface-type mounting boxes are resistant to heat.		P
	Compliance is checked by the relevant tests according to Table 25.		P
<b>25.2</b>	<b>Basic heating test</b>		<b>P</b>
	Specimens kept: heating cabinet, 1h, $100 \pm 2 ^\circ\text{C}$		P
	During the test: - no change impairing their further use; sealing compound, if any, do not flow so live parts are exposed.		P

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Clause	Requirement + Test	Result - Remark	Verdict
	After the test: <ul style="list-style-type: none"> <li>- markings still legible</li> <li>- no access to live parts with probe B of IEC 61032 applied with a force not exceeding 5 N</li> <li>- in particular: live parts no become accessible as defined in Clauses 10.2 / 10.5</li> </ul> live parts no damage as to impair Cr / Cl distances as defined in Clause 27		P
<b>25.3</b>	<b>Ball-pressure test at 125 °C</b>		<b>P</b>
	Parts of insulating material necessary to retain current-carrying parts and parts of the earthing circuit in position, as well as parts of the front surface zone, 2 mm wide, surrounding phase and neutral pin entry holes: ball-pressure test at $(125 \pm 2) ^\circ\text{C}$ for 1 h (apparatus shown in Figure 40)	See appended Table 25.2	P
	Part under test placed on a steel plate at least 3 mm thick and in direct contact with it		P
	Surface of the part tested: placed in horizontal position		P
	The hemispherical tip of the test equipment: pressed against the surface with a force of 20 N		P
	Diameter of the impression caused by the ball: not exceed 2 mm.		P
<b>25.4</b>	<b>Ball-pressure test at 70 °C or higher</b>		<b>P</b>
	Parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuit in position, even though in contact with them: ball pressure test at $(70 \pm 2) ^\circ\text{C}$ , or $(40 \pm 2) ^\circ\text{C}$ plus the temperature rise determined during the test of Clause 19, whichever is the higher	See appended Table 25.3	P
<b>25.5</b>	<b>Compression test</b>		<b>N/A</b>
	Portable accessories: compression test, by means of the apparatus shown in Figure 41 (steel jaws): <ul style="list-style-type: none"> <li>- 20 N at <math>(80 \pm 2) ^\circ\text{C}</math> for 1 h</li> </ul>		N/A
	After the test: <ul style="list-style-type: none"> <li>- no damage impairing further use</li> <li>- in particular: live parts no become accessible as defined in Clauses 10.2 / 10.5</li> </ul> live parts no damage as to impair Cr / Cl distances as defined in Clause 27		N/A
<b>28</b>	<b>RESISTANCE OF INSULATING MATERIAL TO ABNORMAL HEAT, TO FIRE AND TO TRACKING</b>		<b>P</b>
<b>28.1</b>	<b>Resistance to abnormal heat and to fire</b>		<b>P</b>
28.1.1	General		P
	Parts of insulating material exposed to thermal stresses due to electric effects, and the deterioration of which impair the safety of the accessory, do not affected by abnormal heat and by fire.		P

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Clause	Requirement + Test	Result - Remark	Verdict
28.1.2	Glow-wire test		P
	Test performed according to: - IEC 60695-2-10:2021 - IEC 60695-2-11:2021		P
	Parts of insulating material necessary to retain current-carrying parts, and parts of the earthing circuit of fixed accessories in position: test carried out at 850 °C.	See appended Table 28.1.1	N/A
	Parts of insulating material necessary to retain current-carrying parts, and parts of the earthing circuit of portable accessories in position: test carried out at 750 °C.	See appended Table 28.1.1	N/A
	Parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuit in position, even though they are in contact with them: test carried out at 650 °C. Parts needed to retain the earth terminal in position in a box: test carried out at 650 °C.	See appended Table 28.1.1	P
	Test carried out on specimen of a complete accessory		P
	Test carried out on a suitable part cut from of a complete accessory		N/A
	The specimen has passed the glow-wire test if: – there is no visible flame and no sustained glowing, or if – flames and glowing extinguish within 30 s after removal of the glow-wire.		P
	No ignition of the tissue paper or scorching of the board		P
28.1.3	Test for pins with insulating sleeves		N/A
	Pins provided with insulating sleeves tested by means of the test apparatus as shown in Figure 43.		N/A
	Test temperature maintained for 3 h at $(120 \pm 5) ^\circ\text{C}$ or $180 \pm 5 ^\circ\text{C}$		N/A
	Specimens removed and cooled at room temperature		N/A
	Insulating sleeves of the pins submitted to an impact test: 4 impacts, mass 100 g, height 10 mm		N/A
	No cracks visible on the insulating sleeves		N/A
	Dimensions have not changed		N/A
28.2	Resistance to tracking		P
	Accessories having an IP code higher than IPX0, parts of insulating material retaining live parts in position are of material resistant to tracking		P
	Material designation		P
	Check in accordance with IEC 60112		P
	Flat surface of the part tested: 15x15 mm		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Proof-tracking index 175, test solution A, interval between drops of $30 \pm 5$ s.		P
	No flashover or breakdown occurs before 50 drops has fallen.	See appended Table 28.2	P

14.22	TABLE: Components					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Decorative frame	ELIX	P2H-AT	-	IEC 60884-1	Tested with the unit	
Lid	ELIX	P2H-AT	-	IEC 60884-1	Tested with the unit	
Gasket	Versalis	Riblene MT 10 R	-	IEC 60884-1	Tested with the unit	
Supplementary information:						
<sup>1)</sup> Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

17.2	TABLE: insulation resistance			P
	Rated voltage (V) .....	250 V		P
Item per 17.2.1 17.2.2 17.2.3	Test voltage applied between:	Measured (MΩ)	Required (MΩ)	
a	Poles connected together and body (plug engaged)	> 100 MΩ	> 5 MΩ	
b	Each pole and others connected together (plug engaged)	> 100 MΩ	> 5 MΩ	
supplementary information:				

17.3	TABLE: electric strength			P
	Rated voltage (V) .....	250 V		—
Item per 17.2.1 17.2.2 17.2.3	Test voltage applied between:	Test voltage (V)	Flashover / breakdown (Yes/No)	
a	Poles connected together and body (plug engaged)	2000 V	No	
b	Each pole and others connected together (plug engaged)	2000 V	No	
supplementary information:				

24.2	TABLE: impact test			P
Part of enclosure tested per Table 21 (A, B, C, D)	Blows per part	Height of fall (mm) (Table 23)	Comments	

IEC 60884-1			
Clause	Requirement + Test	Result - Remark	Verdict
A	5	80 mm	No damage
supplementary information:			

25.3	TABLE: ball pressure test of insulating materials		N/A
	allowed impression diameter (mm) .....	≤ 2 mm	—
part under test (*)		test temperature (°C)	impression diameter (mm)
		125	
(*) supplementary information: <input type="checkbox"/> An aged sample, same material has been used <input type="checkbox"/> Test carried out on a cut piece at least 2 mm thick <input type="checkbox"/> Four layers are used; total thickness not less than 2,5 mm			

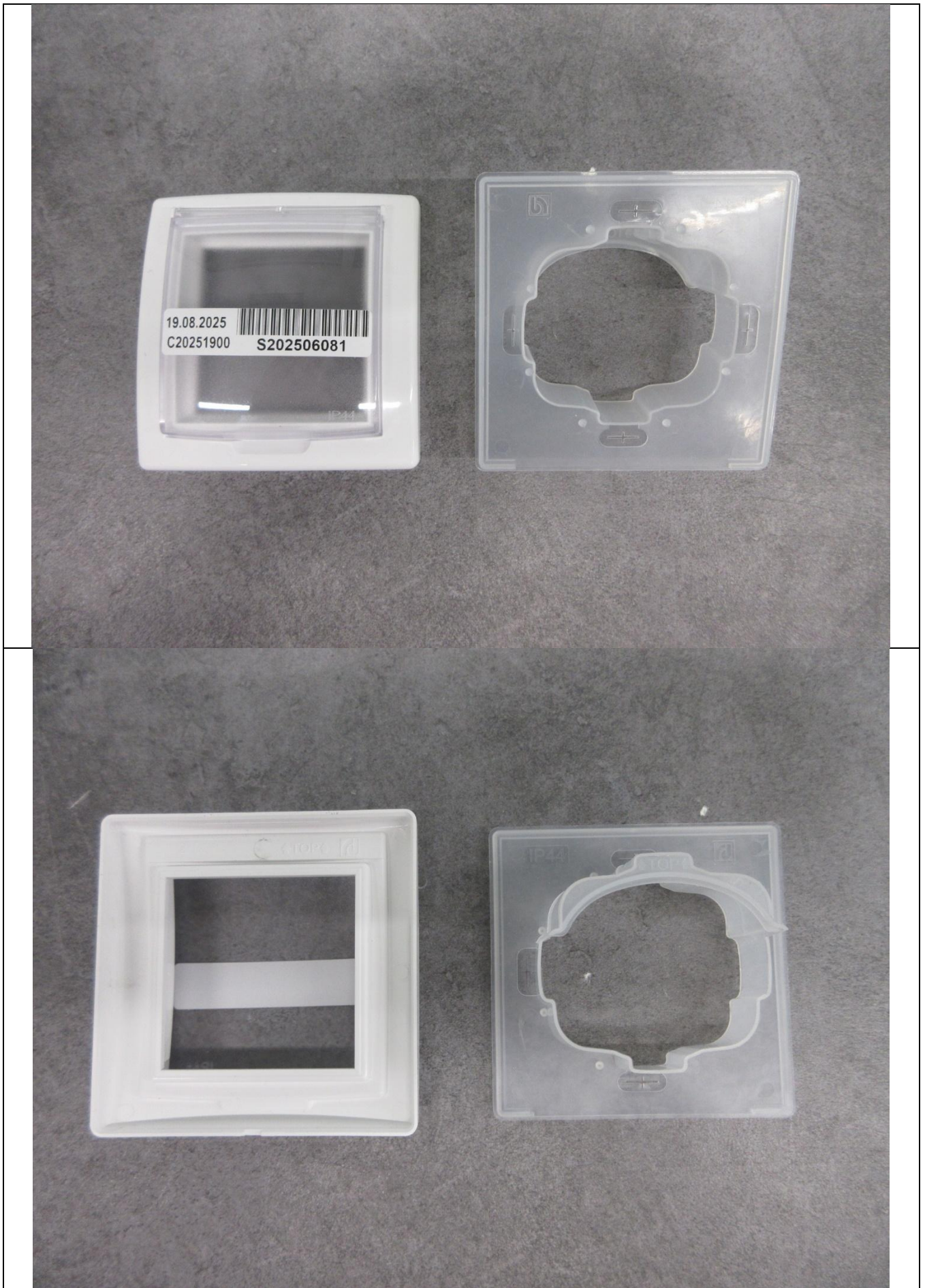
25.4	TABLE: ball pressure test of insulating materials		P
	allowed impression diameter (mm) .....	≤ 2 mm	—
part under test		test temperature (°C) <sup>(1)</sup>	impression diameter (mm)
Lid of socket (ELIX P2H-AT)		70°C	< 1,0 mm
Decorative frame (ELIX P2H-AT)		70°C	< 1,0 mm
supplementary information: <sup>(1)</sup> (70 ± 2) °C / (40 ± 2) °C + highest temperature rise determined during the test of clause 19			

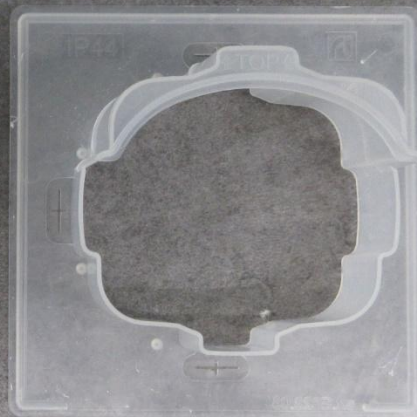
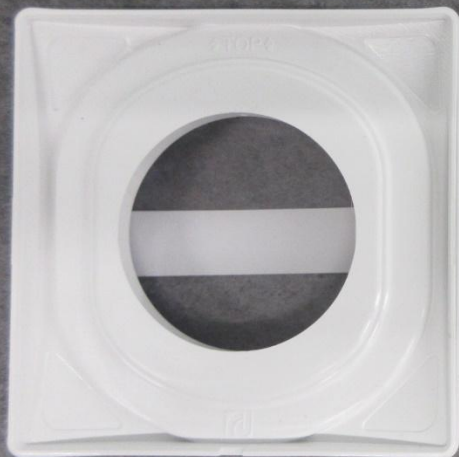
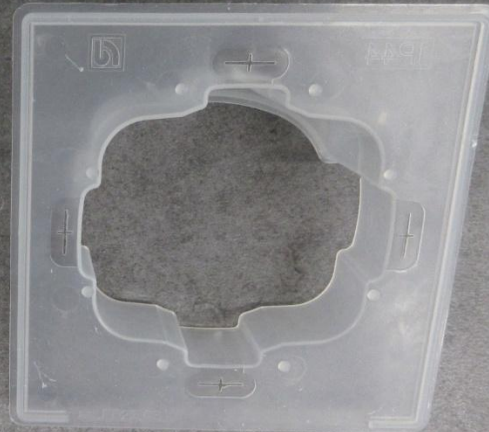
28.1.2	TABLE: glow-wire test					P
part under test	material designation	test temperature (°C)	visible flame and sustained glowing (Y/N)	flame and glowing extinction time	ignition of the tissue paper (Y/N)	
Decorative frame	ELIX P2H-AT	650°C	N	0/0*	N	
Lid	ELIX P2H-AT	650°C	N	0/0	N	
supplementary information: *No ignition. No drops.						

28.2	TABLE: resistance to tracking			P
	number of drops .....	50		—
part under test	material designation	test voltage (V)	flashover / breakdown (Yes/No)	

IEC 60884-1			
Clause	Requirement + Test	Result - Remark	Verdict
Base	Lexan 223R	175	No
supplementary information:			

#### 4 PHOTOS OF PRODUCT





## 5 DOCUMENTATION

Ensure that the wall has a suitable surface for sealing. The maximum allowed roughness and deviation from a flat surface is 1 mm. Installation on porous surfaces, grainy facades, etc., is not recommended.

The installation may only be carried out by a professional electrician in accordance with national installation regulations.

### SAFETY PRECAUTIONS

- Be sure to turn off the electrical power supply (main fuse) during installation
- Installation may only be performed by qualified personnel with appropriate experience
- Make sure to install correctly
- The declared protection rating can only be achieved through proper installation



### INSTALLATION INSTRUCTION

Mounting the gasket on the wall and pulling the wire through (Figure 1)

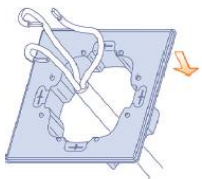


Figure 1

Connecting the socket mechanism and embedding it into the wall (Figure 2)

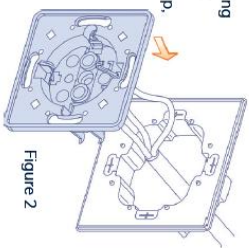


Figure 2

After tightening the clamp, check that the gasket sits properly on the wall surface

Installing the assembly of the frame and cover (Figure 3, Figure 4)  
Attach the frame with a screw and lower the cover

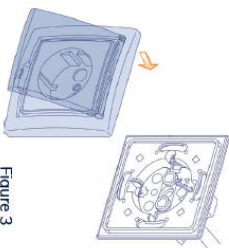


Figure 3

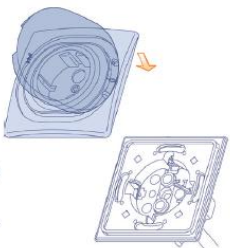


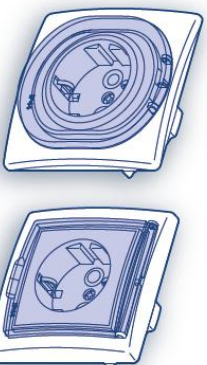
Figure 4



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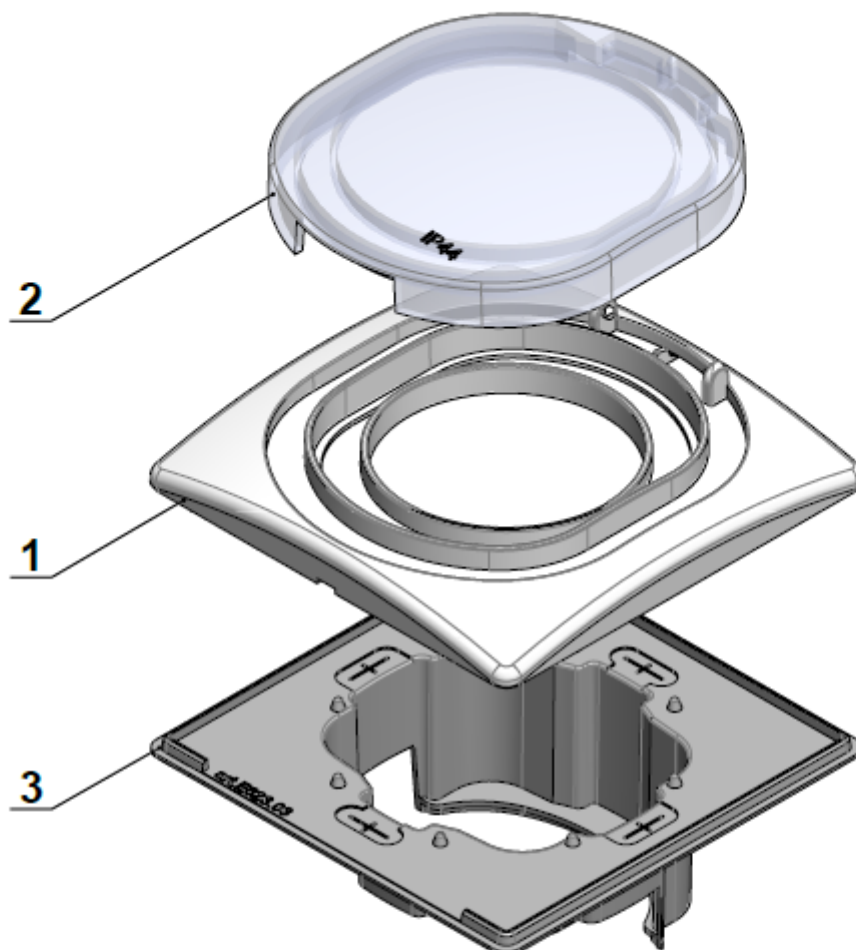
### INSTRUCTIONS FOR INSTALLATION AND OPERATION


#### TWO-POLE SOCKET OUTLET IP44



art.E623

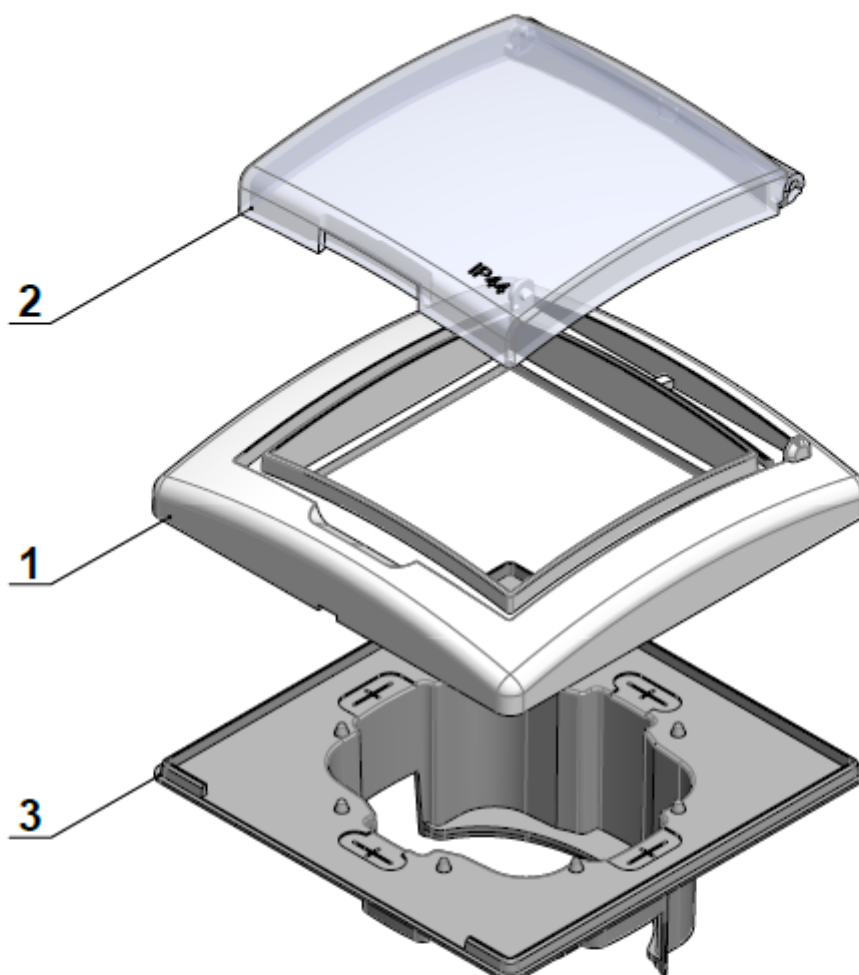
art.623



3	Zaptivka za zid IP44 EON		art.E623.03	1	LDPE			
2	Poklopac maske priključnice IP44 EON		art.E623.02	1	PC transp			
1	Maska priključnice IP44 EON		art.E623.01	1	ABS			
Poz.	Naziv		Oznaka	Kom.	Materijal	Dim./ Šifra za nabavku	Napomena	
		Materijal				Površinska zaštita	Termička obrada	
		Dim./Šifra za nabavku				ID Broj	Masa	Razmera
	Sklop	Kom.				095056	30.561	1:1
Pripadnost					Naziv			
84100-Prikljucnice_EON					SET ZA PRIKLJUČNICE IP44 EON			
			Tolerancije slobodnih mera		Oznaka art.E62344.X			
	Datum	Ime						
Konstruisao	29.08.25	Miljan Matijević	 ALING-CONEL GAJDOBRA					
Crtao	29.08.25	Miljan Matijević						
Pregledao	17.10.25	Miljan Matrak						
Odobrio	17.10.25	Miljan Matrak						
					Revizija 04			



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3	Zaptivka za zid IP44 PRESTIGE	art.623.03	1	LDPE		
2	Poklopac maske priključnice IP44 PRESTIGE	art.623.02	1	PC transp		
1	Maska priključnice IP44 PRESTIGE	art.623.01	1	ABS		
Poz.	Naziv	Oznaka	Kom.	Materijal	Dim./ Šifra za nabavku	Napomena
		Materijal			Površinska zaštita	Termička obrada
		Dim./Šifra za nabavku			ID Broj	Masa
Sklop	Kom.				095053	29.123
						Razmera
						1:1
Pripadnost				Naziv		
600-Prikljucnice_PRESTIGE				SET ZA PRIKLJUČNICE IP44 PRESTIGE		
				Tolerancije slobodnih mera		
	Datum	Ime				
Konstruisao	29.08.25	Miljan Matijević				
Crtao	29.08.25	Miljan Matijević				
Pregledao	11.09.25	Miljan Matrak				
Odobrio	11.09.25	Miljan Matrak				
			Oznaka		Revizija	
			art.62344.X		02	



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