TECHNICAL INFORMATION FOR AU4 IMPERIAL RANGE STANDOFF INSULATORS

You will find useful technical information below but, if you have any questions, please **contact our technical team** for support.

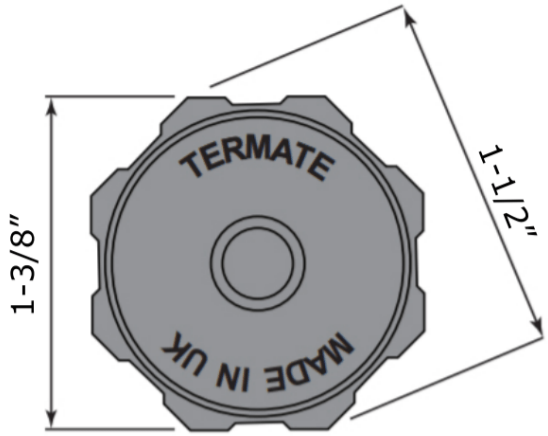
TECHNICAL SPECIFICATION

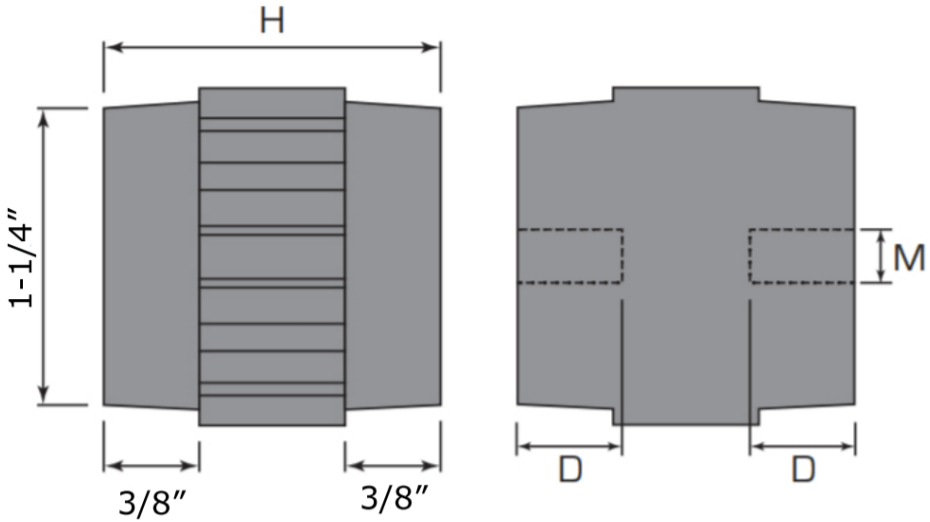
The below table shows the AU4 range of Termate standoff insulators.

The complete AU4 range is suitable for applications with an AC Equipment Voltage Ue up to 1000 V or DC Equipment Voltage Ue up to 1500 V.

The technical data provided in the table below provides information necessary for product selection and technical assessment in line with IEC and UL product standards.

We hold excellent stock of all of our products and will be happy to provide you a quotation for your requirements, please use our contact us page or email our customer support team.





Part Number	3D Model	Description	Height [H] †	Thread Size [M]*	Thread Depth [D]	Maximum Tightening Torque (lb·ft)	Tensile Strength** (lb)	Cantilever Strength** (lb)	Box Qty.
AU4-030-014	AU4-030-014 STEP file	1.19″ high Standoff Insulator with 1/4UNC thread	1-3/16″	¼″—20 UNC	5⁄16″	6	2200	1200	60

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Part Number	3D Model	Description	Height [H] †	Thread Size [M]*	Thread Depth [D]	Maximum Tightening Torque (lb·ft)	Tensile Strength** (lb)	Cantilever Strength** (lb)	Box Qty.
AU4-030-516	AU4-030-516 STEP file	1.19″ high Standoff Insulator with 5/16UNC thread	1-3/16″	5⁄16″—18 UNC	3⁄8″	17	2800	1700	60
AU4-035-014	AU4-035-014 STEP file	1.375″ high Standoff Insulator with 1/4UNC thread	1-3/8″	1⁄4″—20 UNC	5⁄16″	6	2200	1100	60
AU4-035-516	AU4-035-516 STEP file	1.375″ high Standoff Insulator with 5/16UNC thread	1-3/8″	5⁄16″—18 UNC	3⁄8″	17	2900	1600	60
AU4-035-038	AU4-035-038 STEP file	1.375″ high Standoff Insulator with 3/8UNC thread	1-3/8″	3⁄8″—16 UNC	3⁄8″	32	3400	2200	60
AU4-040-014	AU4-040-014 STEP file	1.56″ high Standoff Insulator with 1/4UNC thread	1-9/16″	1⁄4″—20 UNC	5⁄16″	6	2200	1000	50
AU4-040-516	AU4-040-516 STEP file	1.56″ high Standoff Insulator with 5/16UNC thread	1-9/16″	5⁄16″—18 UNC	3⁄8″	17	2900	1500	50

Part Number	3D Model	Description	Height [H] †	Thread Size [M]*	Thread Depth [D]	Maximum Tightening Torque (lb·ft)	Tensile Strength** (lb)	Cantilever Strength** (lb)	Box Qty.
AU4-040-038	AU4-040-038 STEP file	1.56″ high Standoff Insulator with 3/8UNC thread	1-9/16″	⅜″—16 UNC	⅜″	32	3500	2100	50
AU4-045-014	AU4-045-014 STEP file	1.75″ high Standoff Insulator with 1/4UNC thread	1-3/4″	¼″—20 UNC	5⁄16″	6	2200	900	50
AU4-045-516	AU4-045-516 STEP file	1.75″ high Standoff Insulator with 5/16UNC thread	1-3/4″	5⁄16″—18 UNC	⅜″	17	3000	1400	50
AU4-045-038	AU4-045-038 STEP file	1.75″ high Standoff Insulator with 3/8UNC thread	1-3/4″	⅜″—16 UNC	⅝″	32	3600	2000	50
AU4-050-014	AU4-050-014 STEP file	2″ high Standoff Insulator with 1/4UNC thread	2″	¼″—20 UNC	5⁄16″	6	2200	800	25
AU4-050-516	AU4-050-516 STEP file	2″ high Standoff Insulator with 5/16UNC thread	2″	5⁄16″—18 UNC	⅜″	17	3100	1300	25

Part Number	3D Model	Description	Height [H] †	Thread Size [M]*	Thread Depth [D]	Maximum Tightening Torque (lb·ft)	Tensile Strength** (lb)	Cantilever Strength** (lb)	Box Qty.
AU4-050-038	AU4-050-038 STEP file	2″ high Standoff Insulator with 3/8UNC thread	2″	⅜″—16 UNC	⅝″	32	3700	1900	25
AU4-050-012	AU4-050-012 STEP file	2″ high Standoff Insulator with 1/2UNC thread	2″	½″—13 UNC	⅝″	56	4800	2500	25
AU4-060-516	AU4-060-516 STEP file	2.375″ high Standoff Insulator with 5/16UNC thread	2-3/8″	5⁄16″—18 UNC	⅜″	17	3200	1200	25
AU4-060-038	AU4-060-038 STEP file	2.375″ high Standoff Insulator with 3/8UNC thread	2-3/8″	⅜″—16 UNC	⅝″	32	3800	1700	25
AU4-060-012	AU4-060-012 STEP file	2.375″ high Standoff Insulator with 1/2UNC thread	2-3/8″	½″—13 UNC	⅝″	56	4900	2100	25

† Imperial height is approximate, products are manufactured to metric dimensions. (2” = 50mm)

* Fixing details: Hole diameter = Standoff thread size [M]+1⁄16″

** Tensile and Cantilever Strength figures are based on tests carried out at normal room temperature, nominal 73.4 °F

RECOGNITION, PROPERTIES AND CHARACTERISTICS

Recognition	Reference / Link	Preferred name
UL Recognised Component	File Number: E505645	
EClass 8.0	27-08-10-08	Insulator, plastic
EClass 14.0	27-08-10-03	Bus bar holder (insulator, post insulator)

Properties	Value / Measure / Unit
Insulator Material	**Glass Reinforced Polyamide 6.6 (PA66)**
Insert Material	**Brass**
Operating Range in Fahrenheit	This material operates in a wide temperature range: **−40 °F to +266 °F**
Operating Range in Celsius	This material operates in a wide temperature range: **−40 °C to +130 °C**
Flammability	**UL 94 V-0**

Properties	Value / Measure / Unit
Oxygen Index	**32%**
Glow Wire	**960 °C**

Characteristics	Value
Maximum Alternating Current Equipment Voltage, U_e	**1000 V**
Maximum Direct Current Equipment Voltage, U_e	**1500 V**
Impulse Voltage, U_{imp}	**12 kV**

ADDITIONAL UL YELLOW CARD INFORMATION

The following table provides additional UL Yellow Card information, for the material used in AU4 standoff insulator range, required for assessing the suitability for incorporation into electrical equipment built to North American standards or for use when evaluating unlisted equipment for compliance with North American recognised standards, using methods such as NFPA 791.

Properties	Value	Test Method

Properties	Value	Test Method
Hot-wire Ignition (HWI)	**PLC 0**	UL 746A
High Amp Arc Ignition (HAI)	**PLC 1**	UL 746A
Comparative Tracking Index (CTI)	**PLC 0**	UL 746A
UV Exposure & Water Immersion	**f1**	UL 746C

MANUFACTURING DETAILS

Termate's AU4 standoff insulator range provides excellent electrical insulation and mechanical strength for a variety of applications. Standoff insulators can also be referred to as post insulators, egg insulators, bobbin insulators, or busbar isolators.

This standoff insulator range is available in heights from 1³⁄₁₆ inch to 2⅜ inch and insert sizes of ¼″-20 to ½″—13 UNC. Technical data is found on the table above which displays heights, thread size and depth, maximum tightening torques, tensile and cantilever strengths, and box quantities available.

Please note that while we have referenced imperial (inch) dimensions, the height and width of the range is identical to the metric sizes. The .STEP files attached are the correct dimensions.

- Made from UL 94 V-0 rated, self-extinguishing material
- Halogen Free
- Operating temperature range of −40 °F to +266 °F
- Insulation voltage of up to 1000 V AC, 1500 V DC
- Equipment voltage of up to 1000 V AC, 1500 V DC

- UL Recognised Component; file number **E505645**

Our standoff insulators are made from a halogen-free glass-reinforced material, which was specifically chosen for its mechanical and electrical insulation properties.

Brass inserts are used due to this alloy's resistance to corrosion. The injection moulding process, combined with our excellent quality control and inspection procedures, results in a consistent product across every production run.

TESTING

Termate carries out rigorous and appropriate testing on all our products. The AU4 range of standoff insulators successfully passed extensive testing to ensure their electrical and mechanical capabilities.

Termate has obtained UL Component Recognition for our insulators. Where applicable, they comply with both UL891 Annex G and UL508A Annex D for brace and support requirements for panelboard and switchboard accessories.

AU4 standoff insulators meet the requirements for UL 94 V-0. UL 94 being a standard for the safety of flammability of plastic materials for parts in devices and appliances released by the Underwriters Laboratories.

Our Standoff insulator range is a UL Recognised Component and are listed under the product category "Panelboard and Switchboard Accessories – Component", more information can be found at **UL Product IQ**.

APPLICATION

Our standoff insulators are suitable for assemblies up to 1000 V AC or up to 1500 V DC. They are intended to safely and securely support and insulate busbars and other live conductors by maintaining a distance between two surfaces. In these types of installations, the electrical insulation and the mechanical strength of the support are paramount.

Usual installations are within:

- Energy Storage Systems and Equipment (UL9540)
- Electrical Panelboards (UL67)
- Industrial Control Panels (UL508A)
- Switchboards (UL891)
- Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear (UL 1558)
- Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources (UL1741)

These electrical installations can be found in a wide range of sectors including power distribution, rail (rolling stock & trackside), renewable energy, UPS (temporary and emergency power), and data centre power distribution.

At Termate, we have been designing and manufacturing electrical insulating parts and components, such as our standoff insulators, from our Nottingham UK based factory for over 60 years.

Quality is ensured on every product we produce. Our knowledge and experience of the raw materials used, the performance requirements, and the application of our products allow us to provide products that are safe and fit for purpose.

Termate is committed to the highest standard of customer focus and we have made every effort to maintain the accuracy and completeness of the information provided in this data.

Where improvements to our products affect their installation and usage we endeavour to contact any customers who may be affected.

Warranty as stated in our **Terms and Conditions of Trading** is void if any modification is made to the warranted product.