



Why Use DEVI Products?

Product Approvals – DEVI Australia

DEVI product line includes a very comprehensive range of heating cables, heating mats, electronic floor sensing thermostats, heated towel rails, radiant heating panels, commercial fan heaters and specialised industrial heating products.

DEVI's thin heating mats comply to AS/NZS 60335.2.96:2002*. All DEVI heating products have Australian approvals:-

CS8362N	In Slab Heating Cables
CS8361N	Single Conductor Heating Cables for Screed
CS05188V	Twin Conductor Heating Cables for Screed
CS04339V	Single Conductor Heating Mats*
CS04216V	D540 Thermostat Range
CS8364N	D520 Thermostat Range
CS04033V	D130 Thermostat Range
CS8365N	D330 Thermostat Range
CS8363N	Heated Towel Rails

Concerns about the dangers of using non-Australian approved equipment

The heating market has grown very fast over the last few years and now consists of about 10 companies some of which are selling products that may not have the correct Australian approvals. These products are being sold to Electricians and the handyman in what is a completely uncontrolled market, with some products installed in wet areas not even being earthed.

Electrical contractors being the final link in the supply chain, and who work with the end customer are being exposed to the possible risk of litigation if a product failure which could cause damage or injury occurs due the product not having a correct current Australian approval - showing either that the products are manufactured to an international or Australian standard or are installed to an international or Australian standard.

DEVI Comfort Heat Pty Limited ABN 75 061 300 427
PO Box 707 MONA VALE NSW 1660

Head Office

Phone (02) 9997 2811
Fax (02) 9997 7852
Freecall 1 800 636 091

Victoria

Phone (03) 5986 7388
Fax (03) 5986 7399
Mobile 0410 880 332

Tasmania

Phone (03) 6273 9122
Fax (03) 6273 9120
Mobile 0409 326 980



SunRay Comfort Heating Pty Ltd
464 Nelson Rd, Gulfview Heights SA 5096
P: 08) 8396 5617 F: 08) 8264 9188
E: sales@sunraycomfort.com.au
W: www.sunraycomfort.com.au



What should the connecting/installing electrician look for?

Who is the manufacture and country of origin, who supplies the warranty and who holds the approvals?

It is important to look at the manufacture and the country of manufacture not just the importer.

Last year **DEVI** produced over 39,000 kilometers of heating cable, 220,000 heating mats, 326,000 ready made heating cables and 400,000 thermostats.

DEVI has a network that is world wide with sales companies in over 25 countries and partners in 3 countries.

DEVI's 10 years manufacturing warranty is backed by **Danfoss** one of Denmark's largest manufacturing company employing over 30,000 people world wide.

All **DEVI** products have international approvals as well as **local approvals** in every country around the world where product is sold.

DEVI in Denmark holds Australian approvals for their products sold in Australia.

Another important fact that requires clarification is the type of approval - is the product suitable for the purpose for which it is intended. It is very important that the approvals are either construction based approvals or application based approvals.

It is important that the product is made to the standard and not that a standard has been chosen to suit the product. Always ask for a copy of the approval and the installation guide as this guide should be a part of the approval.

In mid 2004, Standards New Zealand introduced an interim standard *NZS6110(Int):2004* which modifies *AS/NZS 3000*. This is an excellent document which clearly lists the appropriate applicable standards for floor heating. Unfortunately it is still only part of the story as a product can meet the "standard" but be completely unsuitable for an application. The mere quoting of a "standard" by a seller may not protect the installer and/or connecting electrician.

DEVI Comfort Heat Pty Limited ABN 75 061 300 427
PO Box 707 MONA VALE NSW 1660

Head Office
Phone (02) 9997 2811
Fax (02) 9997 7852
Freecall 1 800 636 091

Victoria
Phone (03) 5986 7388
Fax (03) 5986 7399
Mobile 0410 880 332

Tasmania
Phone (03) 6273 9122
Fax (03) 6273 9120
Mobile 0409 326 980



SunRay Comfort Heating Pty Ltd

464 Nelson Rd, Gulfview Heights SA 5096
P: 08) 8396 5617 F: 08) 8264 9188
E: sales@sunraycomfort.com.au
W: www.sunraycomfort.com.au



The Recognised Standards



Heating cables – IEC60800 and DIN VDE 0253

IEC60800 has been around a long time. It is a prescriptive, construction based standard that lists permitted materials and their thickness. It has a very useful test for deformation and tensile strength and classifies cables as either Class A, B or C by their deformation strength of 300N(30kg), 600N(60kg) or 2000N(200kg) respectively. All DEVI cables sold in Australia are at least Class C (200kg). DEVI strongly recommends that installers only use Class C cables for in concrete applications.

A German standard DIN VDE 0253 is also listed. Germany is a major producer of heating cables but does not recognize some materials (e.g. PVC, XLPE) to be suitable as insulation for heating cables. German cables are invariably well made and typically use Silicone, Mineral and high quality thermoplastic insulation materials.

IEC60800 cables require a 1mm² Cu earth screen.

Given the minimum insulation thicknesses, the restrictions on materials and the requirement for a 1mm² earth screen, it is not possible to build a "thin" cable that complies to IEC60800. Some sellers are advertising their products are only 2.5mm thick, are earth screened and comply with this standard - we remain sceptical.



Undertile Heating Mats – IEC60335.2.96

To satisfy the demand from the renovation market for a thin cable to sit within the adhesive layer, IEC60335.2.96 was introduced. This Standard has also been adopted by Australia as AS/NZS 60335.2.96:2002 This is an application based standard where manufacturers have considerable freedom as to cable construction materials but must pass severe safety tests. Products complying to this standard can be suitable only to be installed under tiled floors in dry areas, or as, in DEVI's case approved to be installed in the most severe locations, under tiled floors in wet areas.

Some important conditions are:

1. To be approved for installation under tiles the cable must have a minimum deformation strength of 600N(60kg)
2. A 0.5mm² earth screen is required when installed in wet areas. Cables without this facility require an additional steel earthing grid to be laid over the cable.

DEVI Comfort Heat Pty Limited ABN 75 061 300 427
 PO Box 707 MONA VALE NSW 1660

Head Office Phone (02) 9997 2811 Fax (02) 9997 7852 Freecall 1 800 636 091	Victoria Phone (03) 5986 7388 Fax (03) 5986 7399 Mobile 0410 880 332	Tasmania Phone (03) 6273 9122 Fax (03) 6273 9120 Mobile 0409 326 980
--	--	--



SunRay Comfort Heating Pty Ltd
 464 Nelson Rd, Gulfview Heights SA 5096
 P: 08) 8396 5617 F: 08) 8264 9188
 E: sales@sunraycomfort.com.au
 W: www.sunraycomfort.com.au