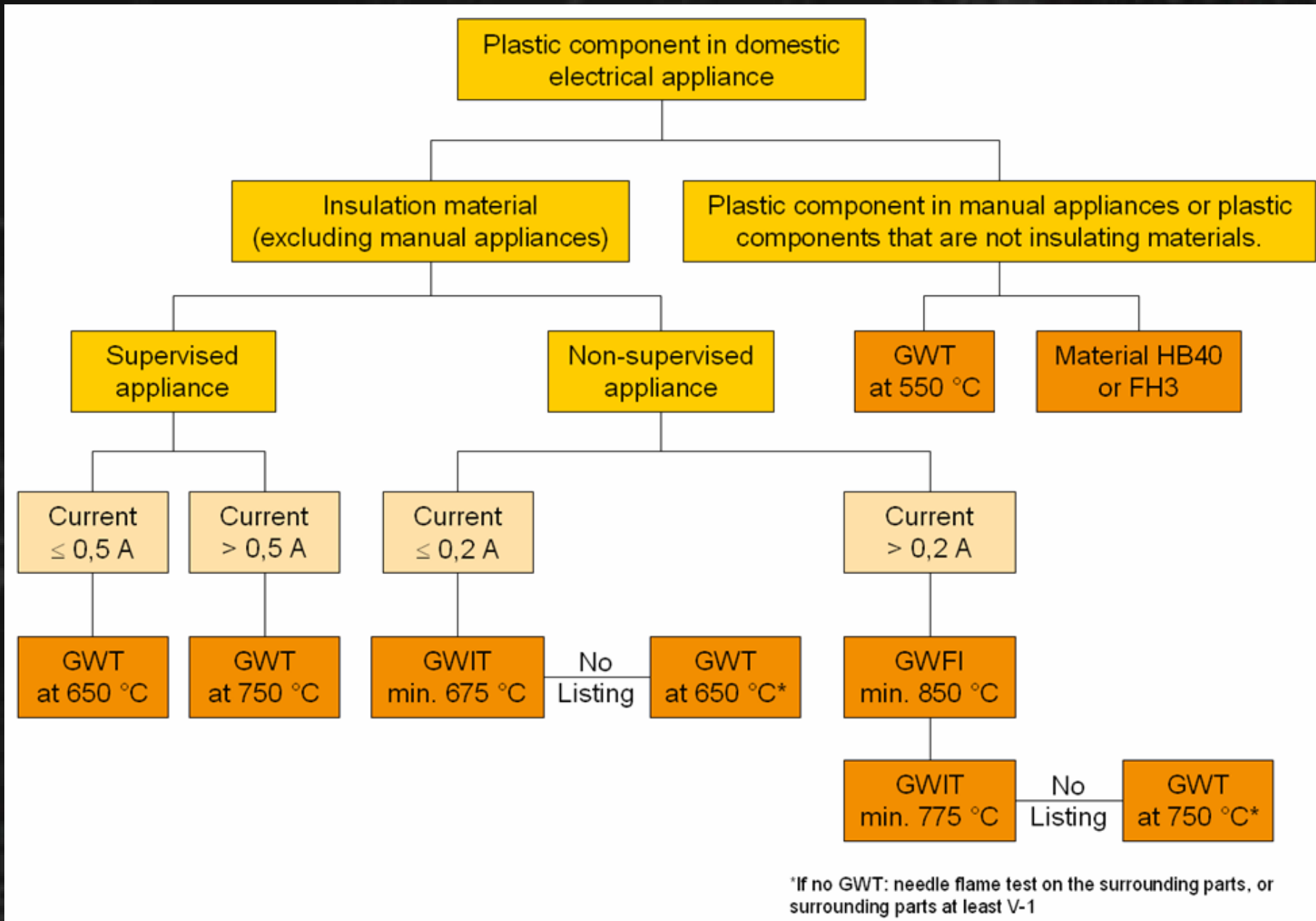




VDE Product Certification for the Domestic Appliance Standard IEC/EN 60335-1

LANXESS
Energizing Chemistry



*If no GWT: needle flame test on the surrounding parts, or surrounding parts at least V-1

For carriers of current-carrying parts in unsupervised appliances with current densities above 0.2A, Domestic Appliance Standard IEC/EN 60335-1 stipulates:

- a GWFI test at 850 °C

and

- a GWIT test at 775 °C.

If materials are used that do not have a GWIT of 775 °C, a test may be performed on the finished part (GWT) at 750 °C. Constructional/design options can still be used to comply with the standard.

If the material passes the GWFI and GWIT tests in the preferred thicknesses 0.75 (± 0.1) mm, 1.5 (± 0.1) mm and 3.0 (± 0.2) mm, all wall thicknesses are allowed in the finished part.

Recent amendment:

In conjunction with the VDE, a way has been found of complying with the domestic appliance standard through the use of certified plastics.

Conditions for the plastics supplier:

1. Certification of the production facility by the VDE
2. Certification of the relevant plastics by the VDE
3. Annual monitoring by the VDE

The up-to-date certificates you will find at

TechCenter Semi-Crystalline Products (www.durethan.com, www.pocan.com)

Menu: [Certificates/VDE Certificates](#)

Ways of complying with IEC/EN 60335

<p>Use of certified materials</p> <ul style="list-style-type: none">– Yellow Card for “UL countries”– NEW: VDE certification for Europe, ...	<ul style="list-style-type: none">– High planning reliability because the materials are selected at an early stage.– Cost reduction because all geometries are directly covered by the use of suitable materials and do not have to be tested individually.– Time saving, because the testing of the finished appliance is reduced.
<p>Testing of the finished part</p>	<ul style="list-style-type: none">– Use of non-certified materials possible (with respect to GWIT), but they must pass the finished part test.
<p>Design/Constructional solutions</p>	<ul style="list-style-type: none">– Use of non-certified materials possible (with respect to GWIT), but the component must conform to special fire and design specifications.

VDE certificate

VDE Prüf- und Zertifizierungsinstitut

GUTACHTEN MIT FERTIGUNGSÜBERWACHUNG
CERTIFICATE OF CONFORMITY WITH FACTORY SURVEILLANCE

LANXESS Deutschland GmbH
SCP-BLAM-PAD-PDFDP
Gebäude F46
41538 Dormagen

ist berechtigt, für ihr Produkt /
is authorized to use for their product

Elektrische Isolierstoffe
Electrical insulating materials
Durethan PA6, PA66

die hier abgebildeten markenrechtlich geschützten Zeichen
für die ab Blatt 2 aufgeführten Typen zu benutzen /
the legally protected Marks as shown below for the types referred to on page 2 ff.



REG.-Nr. C170 oder/and



oder/and VDE-REG.-Nr. C170

REG.-Nr. C170

Geprüft und zertifiziert nach /
tested and certified according to

DIN EN 60695-2-12 (VDE 0471 Teil 2-12):2001-11; EN 60695-2-12:2001
DIN EN 60695-2-13 (VDE 0471 Teil 2-13):2001-11; EN 60695-2-13:2001

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Zertifizierungsstelle / Certification

Schäpper

VDE Zertifikate sind nur gültig bei Veröffentlichung unter:
VDE certificates are valid only when published on:

VDE VERBAND DER ELEKTROTECHNIK
ELEKTRONIK INFORMATIONSTECHNIK e.V.

Aktenzeichen: 5007494-9020-0001 / 86449

File ref.:

Ausweis-Nr. 40020306

Blatt 1

Certificate No.

Page

Weitere Bedingungen siehe Rückseite und Folgestätter /
further conditions see reverse and following pages

Offenbach, 2007-02-26

(letzte Änderung/updated 2007-04-24)

<http://www.vde.com/zertifikat>

<http://www.vde.com/certificate>



Certified company

Product groups PA 6 and PA66

VDE registration number

Certified property

LANXESS

VDE certificate

VDE Prüf- und Zertifizierungsinstitut Gutachten mit Fertigungsüberwachung

Ausweis-Nr. / Blatt /
Certificate No. / page
40020306 2

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
LANXESS Deutschland GmbH, SCP-BLAM-PAD-PDFDP, Gebäude F46, 41538 Dormagen

Aktenzeichen / File ref. 5007494-9020-0001 / 86449 / FG33 / S1
letzte Änderung / updated 2007-04-24
Datum / Date 2007-02-26

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Gutachtens mit Fertigungsüberwachung Nr. 40020306.
This supplement is only valid in conjunction with page 1 of the Certificate of Conformity with factory surveillance No. 40020306.

Elektrische Isolierstoffe Electrical insulating materials Durethan PA6, PA66

Typen / Types:

Glühdrahtentflammbarkeitszahl (GWFI)
Glow-wire-flammability-index (GWFI)

Farben
Colours

Glühdrahtentzündungstemperatur (GWIT)
Glow-wire-ignition-temperature (GWIT)

Durethan DP 1852/30

850/0,75
850/1,5
850/3,0

alle Farben
all colours

775/0,75
775/1,5
775/3,0

Durethan DP A30S
FN30

850/0,8
850/1,8

ungefärbt
uncoloured

775/0,8
775/1,8

Weitere Angaben siehe Anlage 100A
Nr.
Further information see
appendix no.

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
Fachgebiet FG33
Section FG33



VDE Testing and Certification Institute * Institut VDE / Institut de Certification



Merkblatt 28, D-40080 Crefeld

Telefon +49 (0) 23 03 04-0
Telefax +49 (0) 23 03 04-505

Certified grades

GWFI value with preferred thicknesses

Colors

GWIT value with preferred thicknesses

LANXESS

VDE certificate

VDE-Reg.-Nr.: 0170		GUTACHTEN MIT FERTIGUNGSÜBERWACHUNG CERTIFICATE OF CONFORMITY WITH FACTORY SURVEILLANCE		Altversichen: File ref.: 6007292-9020-0001-98449		Ausweis-Nr.: License No.: 43023306		Datum: Date: 2007-06-24	
Elektrische Isolierstoffe Electrical insulating materials		Empfohlene Verarbeitungsbedingungen Recommended processing conditions				Anlage-Nr.: Appendix No.: 160A			
Typ Type	Spritzgossen-Masstemperatur Mold temperature	Spritzgossen-Werkzeugtemperatur Mold temperature	Zulässiger Restfeuchtigkeitsgehalt Permitted residual moisture content	Zulässiger Reibrindanteil Permitted regrind content					
Durethan DP 1852/30	280 °C	80 °C	≤ 0,12 %	≤ 25 %					
Durethan DP A30S FN00	270 °C	80 °C	≤ 0,12 %	≤ 25 %					

VDE Prüf- und Zertifizierungsinstitut
Diese Anlage gilt nur in Verbindung mit Blatt 1 des Gutachtens mit Fertigungsüberwachung.
This Appendix is only valid in conjunction with page 1 of the Certificate of Conformity with factory surveillance.

VDE Prüf- und Zertifizierungsinstitut
VDE Testing and Certification Institute
I. A.

Fachgebiet F0333
Section F0333
VDE

Permitted regrind content
(max. 25 %)

Recommended processing
conditions

– Planning reliability

Through the use of certified plastics, conformity with the standard with respect to the glow wire test can be ensured and the relevant VDE stamp obtained at an early stage of planning.

This planning reliability saves the processor from carrying out any post-finishing work or subsequently having to change his choice of materials.

– Reduced testing

Through the use of certified plastics, different model series manufactured from the same material do not have to be tested individually. The testing work shifts from the plastics processor to the plastics supplier.

The processor saves testing costs and gains testing capacities for other tests.

– Shorter time-to-market

Using certified plastics replaces the need to test the finished article. This eliminates the testing that can otherwise only be carried in the final development stage.

Elimination of the need to test the final article means that the processor can bring his product to market more quickly.

– Global products

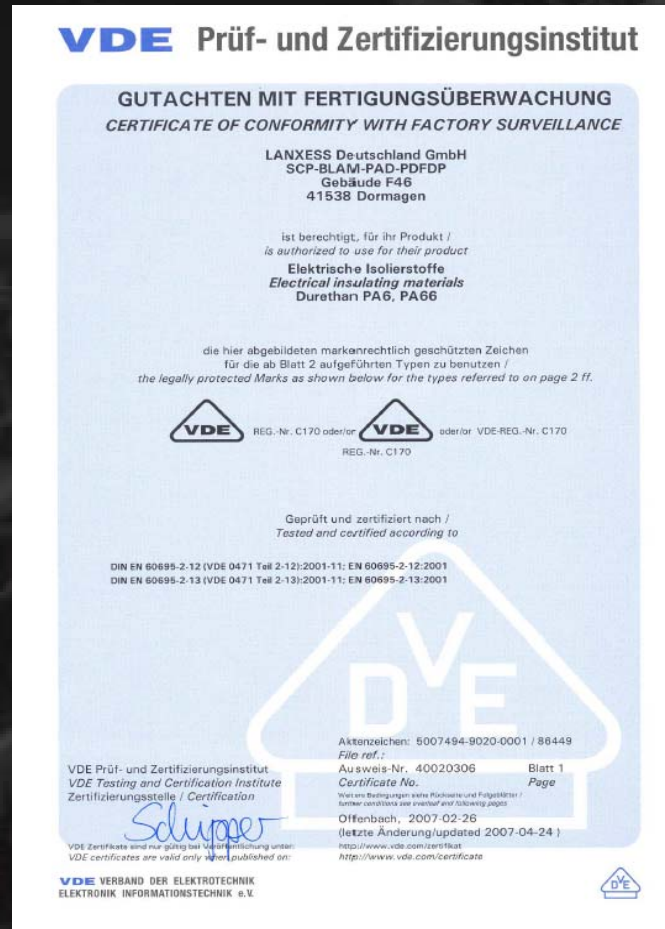
In addition to the Yellow Card from UL, the Lanxess products are also listed with the VDE. This means that the world's two most important organizations confirm compliance with the specifications governing the choice of materials.

Processors can sell their products anywhere in the world.

Planning reliability
reduces subsequent costs

Fewer tests
reduce costs

Safety
through the use of
certified materials



Time-to-market
reduces development time

Global products
reduces logistics

**Thank you
for your
attention**

LANXESS
Energizing Chemistry

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