

# Durethan<sup>®</sup> ECOBKV45FN04

## PA6–GX45 FR(40)

45% Glass Reinforced, Injection Molding, Flame Retardant (halogen free), Heat Stabilized, Improved flow, Recycled Content

Print Date: 2024–08–24

### Sustainability

Mass balanced  
 Recycled based

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage (parallel)	0.2 / *	%	ISO 294–4
Molding shrinkage (normal)	0.6 / *	%	ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	15800 / 10300	MPa	ISO 527–1/–2
Stress at break	160 / 115	MPa	ISO 527–1/–2
Strain at break	2.2 / 4.4	%	ISO 527–1/–2
Flexural modulus	15000 / 10600	MPa	ISO 178
Flexural strength	265 / 180	MPa	ISO 178
Charpy impact strength (+23°C)	55 / 60	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	50 / 50	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 13	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	<10 / 10	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (+23°C)	10 / 13	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	210 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	220 / *	°C	ISO 75–1/–2

All the trademarks mentioned here are trademarks of Envalior.

Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon. Seller makes no other representations or warranties, whether express or implied.

Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.

## Property Data

# Durethan® ECOBKV45FN04

Print Date: 2024-08-24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Coeff. of linear therm. expansion (parallel)	0.2 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.7 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	5VA / *	mm	IEC 60695-11-10
Oxygen index	34 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	750 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	750 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-13
<b>ELECTRICAL PROPERTIES</b>		<b>DRY / COND</b>	
Relative permittivity (100Hz)	4.3 / 8.2	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.9 / 4.2	-	IEC 62631-2-1
Dissipation factor (100 Hz)	145 / 970	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	150 / 630	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / 4.8E10	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1.8E14	Ohm	IEC 62631-3-2
Electric strength	40 / 36	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112
<b>OTHER PROPERTIES</b>		<b>DRY / COND</b>	
Water absorption	3.5 / *	%	Sim. to ISO 62
Humidity absorption	1.1 / *	%	Sim. to ISO 62
Density	1570 / -	kg/m³	ISO 1183

All the trademarks mentioned here are trademarks of Envalior.

Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon. Seller makes no other representations or warranties, whether express or implied.

Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.

## Property Data

# Durethan® ECOBKV45FN04

Print Date: 2024-08-24

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b>PROCESSING RECOMMENDATIONS</b>			
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	
Residual moisture content	0.03-0.07	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	250-280	°C	
Mold temperature	70-90	°C	

All the trademarks mentioned here are trademarks of Envalior.

Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon. Seller makes no other representations or warranties, whether express or implied.

Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.