

Stanyl® TW241F6

PA46–GF30

30% Glass Fiber Reinforced, Heat Stabilized, Lubricated

Print Date: 2026–04–09

Stanyl® TW241F6 is a high heat polyamide that offers excellent creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle–time advantages and excellent flow.

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage [parallel]	0.5 / *	%	Sim. to ISO 294–4
Molding shrinkage [normal]	1.3 / *	%	Sim. to ISO 294–4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	10000 / 6000	MPa	ISO 527–1/–2
Tensile modulus (120°C)	5300 / –	MPa	ISO 527–1/–2
Tensile modulus (160°C)	4750	MPa	ISO 527–1/–2
Tensile modulus (180°C)	4550	MPa	ISO 527–1/–2
Tensile modulus (200°C)	4300	MPa	ISO 527–1/–2
Stress at break	210 / 115	MPa	ISO 527–1/–2
Stress at break (120°C)	115 / –	MPa	ISO 527–1/–2
Stress at break (160°C)	100	MPa	ISO 527–1/–2
Stress at break (180°C)	95	MPa	ISO 527–1/–2
Stress at break (200°C)	90	MPa	ISO 527–1/–2
Strain at break	3.7 / 6	%	ISO 527–1/–2
Strain at break (120°C)	7.5 / –	%	ISO 527–1/–2
Strain at break (160°C)	8	%	ISO 527–1/–2
Strain at break (180°C)	8	%	ISO 527–1/–2
Strain at break (200°C)	8	%	ISO 527–1/–2
Flexural modulus	9500 / 5500	MPa	ISO 178
Flexural modulus (120°C)	5100	MPa	ISO 178

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 2026. 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.

Stanyl® TW241F6

Print Date: 2026-04-09

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Flexural modulus (160°C)	4900	MPa	ISO 178
Flexural modulus (180°C)	4500	MPa	ISO 178
Flexural modulus (200°C)	4400	MPa	ISO 178
Flexural strength	300 / 180	MPa	ISO 178
Flexural strength (120°C)	160	MPa	ISO 178
Flexural strength (160°C)	130	MPa	ISO 178
Flexural strength (180°C)	110	MPa	ISO 178
Flexural strength (200°C)	105	MPa	ISO 178
Charpy impact strength (+23°C)	80 / 100	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	65 / 75	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 21	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	11 / 11	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	12 / 21	kJ/m ²	ISO 180/1A
Izod notched impact strength (-40°C)	11 / 11	kJ/m ²	ISO 180/1A

THERMAL PROPERTIES

DRY / COND

Melting temperature (10°C/min)	295 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	290 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	290 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.19 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.72 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (parallel)	0.25	E-4/°C	ASTM D696
Coeff. of linear therm. expansion (normal)	0.6	E-4/°C	ASTM D696
Thermal conductivity through plane	0.39	W/(m K)	ASTM E1461
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Burning Behav. at 3.0 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10

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 2026. 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

Stanyl® TW241F6

Print Date: 2026-04-09

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
UL recognition	Yes / *	–	–
Relative Temperature Index – electrical	65	°C	UL746B
RTI electrical (Thickness (1) tested)	0.75	mm	UL746B
Thermal Index 5000 hrs	177	°C	IEC 60216/ISO 527-1/-2

ELECTRICAL PROPERTIES

DRY / COND

Volume resistivity	1E12 / 1E7	Ohm*m	IEC 62631-3-1
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	300 / –	V	IEC 60112
Relative permittivity (100Hz)	4.3 / 16	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 4.7	–	IEC 62631-2-1

OTHER PROPERTIES

DRY / COND

Humidity absorption	2.6 / *	%	Sim. to ISO 62
Density	1410 / –	kg/m³	ISO 1183

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 2026. 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.

Stanyl® TW241F6

Print Date: 2026-04-09

Tens. fatigue 8Hz, T, R=0.1 ,
dry

