



TYPICAL PROPERTIES

Reference Document No. GTS-0008S

| | | |
|-----------------------------|------------------------|-----------------------|
| Compound No./Material Name: | Material Description: | Manufacturing Method: |
| ARLON® 1330 | Polyketone, Lubricated | Injection Molded |

| DESCRIPTION (ASTM Standards) | TYPICAL |
|---|--|
| Physical & Mechanical Properties | |
| Color | Tan |
| Specific Gravity (D792) | 1.38 |
| Hardness, Shore D, Points (D2240) | 85 |
| Hardness, Rockwell M, Points (D785) | 96 |
| Tensile Yield Strength, psi [MPa] (D638) | 13,000 [89.6] |
| Tensile Break Strength, psi [MPa] (D638) | 12,600 [86.9] |
| Tensile 0.5% Secant Modulus, psi [MPa] (D638) | 520,000 [3,585.3] |
| Elongation, % (D638) | 20 |
| Flexural Strength, psi [MPa] (D790) | 21,100 [145.5] |
| Flexural 0.5% Secant Modulus, psi [MPa] (D790) | 535,000 [3,688.7] |
| Shear Strength, Axial, psi [MPa] (D732) | 10,400 [71.7] |
| Shear Strength, Transverse, psi [MPa] D732 | 10,400 [71.7] |
| Compressive Strength @ Break, psi [MPa] D695 | 15,500 [106.9] |
| Deformation Under Load, % (D621) | 0.14 |
| Heat Deflection Temperature @ 264 psi, °F [°C] (D648) | 330 [166] |
| Coefficient of Dynamic Friction, PV=12,600 psi-ft./min. (G77) | 0.15 |
| Wear Factor, Modified ASTM G77, 0 ¹⁰ in. ³ -min./[lb.-ft.-hr.] (G77) | 20 |
| Coefficient of Friction, Semi-Sperse SSW2000 Slurry, IC1010 Rodel Pad (CMP Tribology ¹) | 0.594 |
| Mean Square Error (MSE), Vibration Resistance, (CMP Tribology ¹) | 0.056 |
| Wear Factor (Weight Loss/Specific Gravity), mg (CMP Tribology ¹) | 2.860 |
| GTC Wear Factor (Weight Loss/Specific Gravity), mg (WI-SC-02-11.002) | 0.171 |
| Coefficient of Thermal Expansion, < 300°F (149°C) 10 ⁶ in./[in°F] [10 ⁶ cm/(cm°C)] (D696) | 23 [41.4] |
| Coefficient of Thermal Expansion, > 300°F (149°C) 10 ⁶ in./[in°F] [10 ⁶ cm/(cm°C)] (D696) | 82 [147.6] |
| High Temperature Properties | |
| Temperature | Flexural Modulus, psi [MPa] (D790) Shear Strength, psi [MPa] (D732) |
| 75°F [24°C] | 11,250 [77.6] |
| 150°F [66°C] | 472,000 [3,254.3] |
| 200°F [93°C] | 446,800 [3,080.6] |
| 250°F [121°C] | 434,000 [2,992.3] |
| 300°F [149°C] | 197,100 [1,359.0] |
| 350°F [177°C] | 53,190 [366.7] |
| 400°F [204°C] | 29,460 [203.1] |
| 450°F [232°C] | 22,870 [157.7] |
| 500°F [260°C] | – [–] |
| 550°F [288°C] | – [–] |



TYPICAL PROPERTIES

Reference Document No. GTS-0008S

Compound No./Material Name: Material Description:

ARLON® 1330

Polyketone, Lubricated

Manufacturing Method:

Injection Molded

DESCRIPTION

ICP - Mass Spectrometry Analysis

| Element | TM/Poly Material, ppb | Leachable TM/SC1, ppb |
|-----------|-----------------------|-----------------------|
| Aluminum | 810 | 1.5 |
| Calcium | 12,000 | 4.2 |
| Chromium | 600 | 0.3 |
| Copper | * | 0.9 |
| Iron | 4,000 | 7.2 |
| Potassium | 790 | * |
| Magnesium | 370 | 0.1 |
| Sodium | 150,000 | 2.1 |
| Nickel | 450 | 0.1 |
| Lead | * | * |
| Tin | * | * |
| Titanium | 370 | * |
| Zinc | 100 | 0.7 |

Note

Reference GTC Material Code Numbers. Solid Code: 039; Split Code: 038; AGT Code: P8.

[†]Tribology Testing, CETR Parameters.

* Analysis revealed that the element was not found at or above the detection limit for the test.

typical properties / arlon® 1330

© 2013, Greene, Tweed & Co. all rights reserved
All trademarks are property of their respective owners.
09/13-GT_DS-US-GE-175



Contact Us

Greene, Tweed
Kulpsville, PA, USA

Tel: +1.215.256.9521
Fax: +1.215.256.0189

www.gtweed.com

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

