

Technical Information

Introduction

Viton" GLT-200S* fluoroelastomer is a 64% fluorine, peroxide-cured, low temperature fluoroelastomer similar to Viton" GLT-600S, but with a significantly lower gum polymer viscosity of -25 (ML at 121 °C [250 °F]). GLT-200S utilizes the latest technology from Chemours, Advanced Polymer Architecture (APA), which includes a novel peroxide cure site along with an optimized molecular weight distribution.

Features

- Cures exceptionally fast to a high state of cure
- Is ideal for blending with Viton" GLT-600S to reach intermediate viscosity ranges for injection molding
- Improved mold release/mold fouling properties
- Improved mold flow and less shear sensitivity than 65 Mooney Viton[™] GLT-600S
- Excellent physical properties with high elongation, both original and aged
- Heat, fluids, and low temperature resistance comparable to Viton" GLT-600S
- Improved water resistance/lower volume swell in water
- Excellent compression set resistance with either low or no post-cure

Processing

A load factor of 72%+ for internal mixing of GLT-200S is recommended. The suggested process aids for GLT-200S are 0.75 phr of Struktol® HT290, either alone or in combination with 0.5 phr of PAT-777, or combinations of 0.5 phr Armeen® 18D with carnauba wax or Struktol® WS280. The use of TMAIC (trimethally)

*Viton" GLT-200S was formerly named VTR-8505



isocyanurate) is NOT suggested, as it causes poor mold release and high compression set. Viton[™] Curative No. 7 (VC-7) is the suggested coagent for all GLT-200S compounds and usually used at a 2.5 phr level or lower, unless high modulus is needed. High levels of VC-7 can bleed out and cause molding flaws.

Safety and Handling

Before handling or processing Viton" GLT-200S, be sure to read and be guided by the suggestions in the Chemours technical bulletin, "Handling Precautions for Viton" and Related Chemicals."

Product Description

Chemical Composition	Copolymer of perfluoromethylvinyl ether, vinylidene fluoride, and tetrafluoroethylene with a cure site monomer
Physical Form	Sheet
Appearance	White to tan
Odor	None
Mooney Viscosity, ML 1 + 10 at 121 °C (250 °F)	25
Specific Gravity	1.80
Storage Stability	Excellent
Fluorine, %	~64

Table 1. General Properties of Viton" GLT-200S Compared with Viton" GLT-600S

Mi-10 at 121 °C (250 °F) (gum polymer) 20 51 66 Vitor °G1-2005 100 50 — Vitor °G1-2005 — 50 30 Vitor °G1-2005 30 30 30 Vitor °G1-2005 30 30 30 Vitor °G1-2005 3 3 3 Monory Sorch at 121 °C (250 °F) 13 27 45 Vitor °G1-2005 28 263 217 SPL Respinin 200 288 288 ODP, Ros, rin — >30 288 ODP, Ros, rin — >30 28 ODP, Ros, rin 14 13 12 Striptinini 136 13 25 Its 2, rin 14 13 12 Vitor °G10-200 138 23 31 Vitor °G10-300 138 23 31 Vitor °G10-300 138 12 31 Vitor °G10-300 138 12 31 Vitor °G10-300 131 12 31 <td< th=""><th></th><th>Viton[™] GLT-200S</th><th>50/50 Blend</th><th>Viton[™] GLT-600S</th></td<>		Viton [™] GLT-200S	50/50 Blend	Viton [™] GLT-600S
Vind ``GL1-BOOS 50 100 Zinc Oxide 3 3 3 N990 30 30 30 Yon ``Ourative No 7 (VC-7) 3 3 3 Yon Op DIPH-50 3 33 3 Notor DipH-50 3 33 139 Moorey DEPH-50 3 37 139 Notor Span, and L12 °C (250 °F) - 45 21 Minimum 13 27 45 10P: Res, min 28.9 26.3 21.7 50 Res, min - >30 25.8 00R at 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock 25 25 10P: Res, min 5 133 25 152 - Cnin 14 13 12 150, min 26 27 27 160, min 136 138 127 170 Out 17 °C (350 °F), 0.5 ° Arc, 100 Range, 6 Min Clock - - W1, dNn 0.5 1.4 2.6 150, min 13 13 13 13 150, min	ML-10 at 121 °C (250 °F) (gum polymer)	20	51	66
Žiko Dvide 3 3 3 N980 30 30 30 Varov RDRH-50 3 3 3 Varov RDRH-50 3 3 3 Total 139 139 139 Money Sorch at 121 °C (250 °F) 21 45 Minnum 13 27 45 SPL Rise, min 28.9 26.3 21.7 SPL Rise, min 3.0 28.8 23.8 ODR at 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock 28 2.7 M-L, dWin 5 1.3 2.5 t5-2, min 1.4 1.3 1.2 t0-2, dial 1.36 1.38 1.3 M-L, dWin 1.36 1.38 1.2 M-L, dWin 1.36 1.38 1.3 M-L, dMin 0.5 1.4 2.6 t5-2, min 1.4 1.3 1.2 M-L, dMin 0.5 1.4 2.6 t50, min 0.6 0	Viton™ GLT-200S	100	50	—
N990 30 30 30 Vitor "Curative No. 7 (VC-7) 3 3 3 Varox® DBPH-50 3 3 3 Total 139 39 3 Money Sourch at 21 °C (250 °F) Immum 13 27 45 2 Pt. Rise, min 28.9 26.3 21.7 5 Pt. Rise, min >30 28.8 23.8 10 Pt. Rise, min - >30 28.8 23.8 10 Pt. Athm 5 1.3 25 27.7 27.7 150, min 2.8 2.7 2.7 27.7 27.7 29.0 28.8 21.7 27.7	Viton [™] GLT-600S	—	50	100
Nitor "Curative No. 7 (VC-7) 3 3 3 Varox* "DBPH-50 3 3 3 Total 139 139 139 Money Soarch at 121 °C (250 °F) 45 Zhe Nag, min 289 26.3 21.7 S Pt Rag, min 289 28.8 28.8 10Pe Rag, min - >30 28.8 28.8 0R at 62 °C (324 °F), 3° Arc, 100 Range, 30 Min Cloock 4 13 12 USO, min 28 2.7 27 27 27 150, min 136 138 12 27 27 MDR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 4 4 3 51 M-L dNm 136 138 127 20 20 20	Zinc Oxide	3	3	3
Varxe® 0BPH-50 3 3 3 Total 139 139 139 Mooney Scorch at 121 °C (250 °F) 45 Minnum 13 27 45 2 Pt. Rise, min 28.9 26.3 21.7 5 Pt. Rise, min 28.9 26.3 21.7 5 Pt. Rise, min - >30 28.8 23.8 0DPL Rise, min - >30 28.8 23.8 0DR at 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock 13 25 ts-2, min 1.4 1.3 12 12 ts-2, min 1.4 1.3 12 12 ts-2, min 1.4 1.3 12 12 ML, dWn 1.36 1.38 13 12 ML, dWn 0.5 1.4 2.6 12 ts-2, min 0.4 0.4 0.4 0.4 ts-2, min 0.4 0.4 0.4 0.4 ts-2, din <td< td=""><td>N990</td><td>30</td><td>30</td><td>30</td></td<>	N990	30	30	30
Total 139 139 139 Mooney Scorch at 121 °C (250 °F) 7 45 Minnum 13 27 45 2 Pt. Rise, min 289 26.3 21.7 5 Pt. Rise, min >30 28.8 23.8 10 Pt. Rise, min >30 28.8 23.8 10 Pt. Rise, min >30 28.8 23.8 10 Pt. Rise, min >30 28.8 23.8 00 Rat 162° (324 °F), 3° Årc, 100 Range, 30 Min Clock U 13 12 ML, dNm 5 13 25 25 ts-2, min 14 13 12 26 V50, min 28 2.7 2.7 27 V10, min 14 13 12 26 V12, dNm 0.6 138 127 27 V14, dNm 0.13 13 13 127 V12, dNm 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 <td>Viton[™] Curative No. 7 (VC-7)</td> <td>3</td> <td>3</td> <td>3</td>	Viton [™] Curative No. 7 (VC-7)	3	3	3
Money Scorch at 121 °C (250 °F). 13 27 45 Minimum 13 27 45 2 PL Rise, min 28.9 26.3 21.7 5 PL Rise, min >30 28.8 23.8 10 PL Rise, min >30 28.8 23.8 0 DR at 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock 7.8 2.5 W1L, dNm 5 1.3 2.5 2.7 120, min 2.8 2.7 2.7 2.7 130, min 2.8 2.7 2.7 2.7 190, min 136 13.8 12.7 MPL dNm 0.6 13.8 12.7 MPL 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 7.8 MPL dNm 0.5 1.4 2.6 t52, min 0.6 0.6 0.7 150, min 1.3 1.3 1.5 MPL, dNm 2.91 2.80 2.64 Shear Rate (sec. 4) 1.9 MPL, dNm 2.91 2.80 2.64 7.7 3.6 <td>Varox® DBPH-50</td> <td>3</td> <td>3</td> <td>3</td>	Varox® DBPH-50	3	3	3
Minimum 13 27 45 2 Pt Rise, min 28.9 26.3 21.7 5 Pt Rise, min >30 28.8 23.8 10 Pt Rise, min — >30 28.8 23.8 0 Pt Rise, min — >30 25.8 27.8 0 Rat 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock 14 1.3 12 15-2, min 1.4 1.3 12 150, min 2.8 2.7 2.7 190, min 4.4 4.3 12 M-L, dNm 136 136 127 0RD 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 127 127 ML, dNm 0.5 1.4 2.6 ts-2, min 0.4 0.4 0.4 t50, min 1.3 1.3 1.5 ts-2, min 0.6 0.6 0.7 t90, min 1.0 1.1 1.5 t50, min 2.8 0.20 2.64 Resend Capillary Rheometer at 100 °C (212	Total	139	139	139
2 R Rse, min 28.9 26.3 21.7 5 Pt. Rse, min >30 28.8 23.8 10 Pt. Rse, min - >30 25.8 ODR at 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock W-L, d\m 5 13 25 t52, min 14 13 12 t50, min 2.8 2.7 2.7 190, min 4.4 4.3 5.1 M-H, d\m 136 13.6 12 MH, d\m 136 13.6 12 MD2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 0.4 0.4 0.4 W-L, d\m 0.5 1.4 2.6 t52, min 0.4 0.4 0.4 0.4 t50, min 0.6 0.6 0.7 13 1.5 M-L, d\m 29.1 28.0 26.4 26.4 26.4 Sprini 1.3 1.3 1.5 3.1 3.1 3.1 4.7 3.2 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 </td <td>Mooney Scorch at 121 °C (250 °F)</td> <td></td> <td></td> <td></td>	Mooney Scorch at 121 °C (250 °F)			
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10 Pt. Rise, min – >30 25.8 ODR at 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock M-L, dNm 5 13 25 ts-2, min 1.4 1.3 12 t50, min 2.8 2.7 2.7 t90, min 4.4 4.3 5.1 M-H, dNm 136 138 127 MUL Colspan="4">OR 200 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock W-L, dNm 0.5 1.4 2.6 M-L, dNm 0.5 1.4 2.6 DE 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock W-L, dNm 0.5 1.4 2.6 DE 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 0.6 0.7 UF 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 0.6 0.7 UF 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 0.6 0.7 UF 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 0.7 10 11 UF 200 Rate, 2001 Rate, 20	2 Pt. Rise, min	28.9	26.3	21.7
DRat 182 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock 13 25 M-L, dNm 13 12 t52, min 2.8 2.7 2.7 t60, min 4.4 4.3 5.1 M-L, dNm 136 138 127 M50, min 136 138 127 M-L, dNm 136 138 127 M-L, dNm 0.5 1.4 2.6 t52, min 0.4 0.4 0.4 t50, min 0.6 0.6 0.7 t50, min 0.6 0.6 0.7 t63, min 1.0 1.0 1.0 t750, min 1.0 1.0 1.1 t650, min 0.6 0.6 0.6 t750, min 1.3 1.3 1.5 t64, dNm 2.0 2.64 1.5 t750, min 1.3 1.3 1.5 t64, dS1 3.1 4.7 5.3 t750, min 1.3 1.3 1.5 t64, dS1 5.0 6.1 6.9 t7 <td>5 Pt. Rise, min</td> <td>>30</td> <td>28.8</td> <td>23.8</td>	5 Pt. Rise, min	>30	28.8	23.8
M-L, dNm 5 13 25 ts-2, min 14 1.3 1.2 t'50, min 2.8 2.7 2.7 t'90, min 4.4 4.3 5.1 M-H, dNm 136 138 127 DR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 138 127 ML, dNm 0.5 1.4 2.6 ts-2, min 0.4 0.4 0.4 t'50, min 0.6 0.6 0.7 t'50, min 1.0 1.0 1.1 t'55, min 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—U/D = 0/1 aut 10/1 1.1 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—U/D = 0/1 aut 10/2 1.3 1.5 M-H, dNm 31 4.7 5.3 1.1 31 4.7 5.3 M-H, dNm 1.6 6.5 7.7 4.52 5.0 6.1 6.9 <tr< td=""><td>10 Pt. Rise, min</td><td>—</td><td>>30</td><td>25.8</td></tr<>	10 Pt. Rise, min	—	>30	25.8
14 1.3 12 t50, min 28 2.7 2.7 t90, min 4.4 4.3 5.1 M-H, dNm 136 138 127 MDR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 7 M-L, dNm 0.5 1.4 2.6 ts-2, min 0.4 0.4 0.4 (50, min 0.6 0.6 0.7 t'50, min 0.6 0.6 0.7 t'90, min 1.0 1.0 1.1 t'95, min 1.3 1.3 1.5 MH, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100°C (212 °F), 1.5 mm die—L/D = 0/1 and 10.1 1.5 1.5 Shear Rate (sec-4) 28.0 26.4 Shear Rate (sec-4) 5.3 1.13 3.1 4.7 5.3 1.29 6.5 7.7 8.3 2.21 7.9 9.3 10.0 Spieder Mold Flow Test—Spieue 0.8 mm (0.031 im)—Transfer Pressure 10.3 bar—(Cured 7 min at 177 °C (Stor Fr)) 1.6 Total Shot Weight,	ODR at 162 °C (324 °F), 3° Arc, 100 Range, 30 Min Clock			
t*0, min 28 27 27 t*90, min 44 43 51 M-H, dNm 136 138 127 MDR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 26 M-L, dNm 0.5 1.4 2.6 ts-2, min 0.4 0.4 0.4 t50, min 0.6 0.6 0.7 t90, min 1.0 1.0 1.1 t95, min 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = D/1 and D/2 28.0 26.4 Shear Rate (sec -1) 28.0 6.5 7.7 8.3 1.129 6.5 7.7 8.3 2.21 7.9 9.3 100 Spieder Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 10.3 br—(Cured 7 min at 17.7 °C (350 °F)) 31.8 31.7 32.0 31.8 Weight of Spieder, g 31.7 32.0 31.8 31.8 31.7 32.0 31.8	M-L, dNm	5	13	25
190, min 4.4 4.3 5.1 M-H, dNm 136 138 127 MDR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 7.0 7.0 M-L, dNm 0.5 1.4 2.6 ts-2, min 0.4 0.4 0.4 t'50, min 0.6 0.6 0.7 t'90, min 1.0 1.0 1.1 t'95, min 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/2 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/2 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/2 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/2 28.0 6.5 7.7 Shear Rate (sec ⁻¹) .13 3.1 4.7 5.3 1,129 6.5 7.7 8.3 1.0 2,221 7.9 9.3 10.0 1.0 Shear Rate (sec,f) .1 31.7	ts-2, min	1.4	1.3	1.2
M-H, dNm 136 138 127 MDR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 0.5 1.4 2.6 M-L, dNm 0.5 1.4 0.6 ts-2, min 0.6 0.6 0.7 t'50, min 1.0 1.1 1.1 t'90, min 1.0 1.1 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 1.5 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 1.5 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 1.5 28.0 26.4 Shear Rate (sec. ¹) 1.1 5.3 6.5 7.7 1.12 5.0 6.1 6.9 6.9 6.9 6.9 1.12.9 6.5 7.7 8.3 6.0 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.	t'50, min	2.8	2.7	2.7
MDR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min Clock 1.4 2.6 M-L, dNm 0.5 1.4 2.6 ts -2, min 0.4 0.4 0.4 t'50, min 0.6 0.6 0.7 t'90, min 1.0 1.0 1.1 t'95, min 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 at 10.7 Shear Rate (sec-1) Image: Shear Rate (sec-1) Shear Shear Rate (sec-1) <td>t'90, min</td> <td>4.4</td> <td>4.3</td> <td>5.1</td>	t'90, min	4.4	4.3	5.1
M-L, dNm 0.5 1.4 2.6 ts-2, min 0.4 0.4 0.4 t'50, min 0.6 0.6 0.7 t'90, min 1.0 1.0 1.1 t'95, min 1.0 1.0 1.1 t'90, min 1.0 1.0 1.1 t'95, min 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/1 2 2 Shear Rate (sec ⁻¹) 5.3 5.3 5.3 1.13 3.1 4.7 5.3 1.129 6.5 7.7 8.3 2.221 7.9 9.3 10.0 Spider Mold Flow Test—Spare 0.8 mm (0.031 in)—Transfer Pressure 10.3 bar—(Cured 7 min at 177 °C ISTO °F)) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	M-H, dNm	136	138	127
No. 0.4 0.4 0.4 ts-2, min 0.6 0.6 0.7 t'50, min 1.0 1.0 1.1 t'90, min 1.0 1.0 1.1 t'95, min 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/1 20.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/1 3.1 4.7 5.3 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/1 5.0 6.1 6.9 Shear Rate (sec ⁻¹) 5.3 6.5 7.7 8.3 1,129 6.5 7.7 8.3 6.9 2,221 7.9 9.3 10.0 Shider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C (350 °F)) 5.1 5.1 Total Shot Weight, 9 31.7 32.0 31.8 Weight of Spider, 9 24.8 14.5 9.8	MDR 2000 at 177 °C (350 °F), 0.5° Arc, 100 Range, 6 Min	n Clock		
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10 10 11 t'90, min 1.3 1.3 1.5 t'95, min 1.3 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and T/D = 0/1 Shear Rate (sec ⁻¹) Shear Rate (sec ⁻¹) 113 3.1 4.7 5.3 1.1 3.1 4.7 5.3 1.1 3.1 4.7 5.3 1.1 3.1 4.7 5.3 1.1 3.1 4.7 5.3 1.1 5.0 6.1 6.9 1.1,129 6.5 7.7 8.3 2.221 7.9 9.3 10.0 Spider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C [350 °F]) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	ts-2, min	0.4	0.4	0.4
13 1.3 1.5 M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and U/1 Shear Rate (sec ⁻¹) Shear Rate (sec ⁻¹) 113 3.1 4.7 5.3 452 5.0 6.1 6.9 1,129 6.5 7.7 8.3 2,221 7.9 9.3 10.0 Spider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C (350 °F)) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	t'50, min	0.6	0.6	0.7
M-H, dNm 29.1 28.0 26.4 Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/1 3.0	t'90, min	1.0	1.0	1.1
Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm die—L/D = 0/1 and 10/1 Shear Rate (sec ⁻¹) 113 3.1 4.7 5.3 452 5.0 6.1 6.9 1,129 6.5 7.7 8.3 2,221 7.9 9.3 10.0 Spider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C [350 °F]) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	ť95, min	1.3	1.3	1.5
Shear Rate (sec ⁻¹) 3.1 4.7 5.3 113 3.1 4.7 5.3 452 5.0 6.1 6.9 1,129 6.5 7.7 8.3 2,221 7.9 9.3 10.0 Spider Mold Flow Test — Sprue 0.8 mm (0.031 in) — Transfer Pressure 103 bar — (Cured 7 min at 177 °C [350 °F]) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	M-H, dNm	29.1	28.0	26.4
113 3.1 4.7 5.3 452 5.0 6.1 6.9 1,129 6.5 7.7 8.3 2,221 7.9 9.3 10.0 Spider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C [350 °F]) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	Rosand Capillary Rheometer at 100 °C (212 °F), 1.5 mm o	die—L/D = 0/1 and 10/1		
4525.06.16.91,1296.57.78.32,217.99.310.0Spider Mold Flow Test — Sprue 0.8 mm (0.031 in) — Transfer Pressure 103 bar — (Cured 7 min at 177 °C [350 °F])Total Shot Weight, g31.732.031.8Weight of Spider, g24.814.59.8	Shear Rate (sec ⁻¹)			
1,129 6.5 7.7 8.3 2,221 7.9 9.3 10.0 Spider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C [350 °F]) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	113	3.1	4.7	5.3
2,221 7.9 9.3 10.0 Spider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C [350 °F]) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	452	5.0	6.1	6.9
Spride Nold Flow Test—Sprue 0.8 mm (0.031 in)—Transfer Pressure 103 bar—(Cured 7 min at 177 °C [350 °F]) Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	1,129	6.5	7.7	8.3
Total Shot Weight, g 31.7 32.0 31.8 Weight of Spider, g 24.8 14.5 9.8	2,221	7.9	9.3	10.0
Weight of Spider, g 24.8 14.5 9.8	Spider Mold Flow Test—Sprue 0.8 mm (0.031 in)—Transfe	er Pressure 103 bar—(Cured 7 min at 1	L77 °C [350 °F])	
	Total Shot Weight, g	31.7	32.0	31.8
Fill Factor, % 78 45 31	Weight of Spider, g	24.8	14.5	9.8
	Fill Factor, %	78	45	31

continued

	Viton [™] GLT-200S	50/50 Blend	Viton [™] GLT-600S
Physical Properties at RT—Original (Cured 7 min at 177 °C [350 °F]—No post-cure)		
M-10, MPa	0.63	0.72	0.7
M-100, MPa	3.1	3.4	3.2
Tensile, MPa	11.4	12.4	13.8
T-B, psi	1,656	1,795	2,001
Elongation, %	256	292	310
Hardness, A, pts	66	66	64
"Hot" Tear Strength at 150 °C (302 °F)—Original (Cured 7 min at 1	.77 °C [350 °F]—No post-cu	re)	
Tear Die B (nicked), N/mm	9.4	10.1	10.6
Physical Properties at RT—Original (Cured 7 min at 177 °C [350 °F]—Post-cured at 232 °C [30	2 °F] as noted)	
	2 hr	2 hr	2 hr
M-10, MPa	0.7	0.8	0.6
M-100, MPa	3.7	3.9	3.5
Tensile, MPa	16.2	18.2	18.4
T-B, psi	2,350	2,642	2,671
E-B, %	254	298	308
Hardness, A, pts	68	67	67
Compression Set, Method B, O-Rings			
22 hr at 200 °C (392 °F)			
– Post-cured at 232 °C (450 °F)	13	11	13
70 hr at 200 °C (392 °F)			
– No Post-cure	23	26	25
– Post-cured at 232 °C (450 °F)	20	20	20
Low Temperature Testing			
Tg by DSC, °C	-32.8	-32.9	-32.8
Physical Properties at RT—Heat Aged 70 hr at 250 °C (482 °F) in 0)ven		
M-10, MPa	0.7	0.8	0.7
% Change, M10	0	-1	7
M-100, MPa	3.3	3.6	3.1
% Change, M100	-9	-9	-11
Tensile, MPa	19.5	19.2	18.2
% Change, T-B	20	6	-1
Elongation, %	328	325	346
% Change, E-B	29	9	12
Hardness, A, pts	67	67	67
Pts Change	-1	0	0

Table 1. General Properties of Viton[®] GLT-200S Compared with Viton[®] GLT-600S (continued)

continued

	Viton™ GLT-200S	50/50 Blend	Viton™ GLT-600S
Physical Properties at RT—Heat Aged 70 hr at 275 °C (527 °F) in	Oven		
M-10, MPa	0.7	0.8	0.7
% Change, M10	3	5	5
M-100, MPa	3.8	3.7	3.2
% Change, M100	4	-5	-10
Tensile, MPa	13.6	13.8	13.7
% Change, T-B	-16	-24	-26
Elongation, %	250	273	307
% Change, E-B	-2	-8	0
Hardness, A, pts	67	67	67
Pts Change	-1	0	0
Physical Properties at RT—Aged 168 hr at 150 °C (302 °F) in ASTM #105 0il (5W/30)			
M-10, MPa	0.8	0.8	0.8
% Change, M10	15	8	34
M-100, MPa	3.9	4.1	4.3
% Change, M100	7	5	22
Tensile, MPa	8.9	8.6	8.6
% Change, T-B	-45	-53	-53
Elongation, %	165	156	158
% Change, E-B	-35	-47	-49
Hardness, A, pts	70	69	69
Pts Change	2	2	2
Volume Swell, %	0.7	0.8	0.7
Fluid Immersions—Volume Swell			
Fuel C, 168 hr at 23 °C (73 °F)	8.6	8.3	8.6
CM15 Fuel, 168 hr at 23 °C (73 °F)	32.0	36.4	28.8
Distilled Water, 168 hr at 100 °C (212 °F)	3.9	3.8	3.2

Table 1. General Properties of Viton" GLT-200S Compared with Viton" GLT-600S (continued)

Test Procedures

Property Measured	Test Procedure
Compression Set	ASTM D395, Method B (25% deflection)
Compression Set, 0-Rings	ASTM D395, Method B (25% deflection)
Hardness	ASTM D1414, durometer A
Mooney Scorch	ASTM D1646, small rotor at 121 °C (250 °F)
Mooney Viscosity	ASTM D1646, ten pass at 121 °C (250 °F)
ODR (oscillating disk rheometer)	ASTM D2084
Property Change After Heat Aging	ASTM D573
Stress/Strain Properties 100% Modulus Tensile Strength (T-B) Elongation (E-B)	ASTM D412, pulled at 8.5 mm/sec (20 in/min)
Temperature Retraction (TR-10)	ASTM D1329
Volume Change in Fluids	ASTM D471

Test temperature is 23 °C (73 °F), except where specified otherwise.

For more information, visit Viton.com

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