# EPDM M534 EPDM 70 BLACK

**Norm of reference**

ASTM D 2000 M3 DA 714 A26 B36 C32 EA14 F19 G21 * DBL 6038.14(11/2011)*DBL 5556.10 (03/2013) * DBL 5556.20(10/2001) * DBL 5556.21(10/2001) * PN 707-2(10/2005) Categories 7-8 * USP 32<87>(citotoxicity test 37° in vitro) *

| Samples Curing Conditions | | | | |
|---|---|---|---|---|
| | Curing | | Postcuring | |
| Dimensions of the sample | Time | °C | Time | °C |
| Testlabs 200 x 200 x 2 mm | 12 minutes | 177°C | 4 times | 160°C |
| Testlabs 200 x 200 x 6 mm | 12 minutes | 177°C | 4 times | 160°C |
| Buttons Ø 29,50 x 12,50 mm | 12 minutes | 177°C | 4 times | 160°C |

| Mechanical Properties | | | |
|---|---|---|---|
| Test | Reference norm | Unit | Tested value |
| Hardness | ASTM D 2240 | Shore A | 70 |
| Specific gravity | ISO 2781 A | g/cm³ | 1,140 |
| Tensile Strength | ISO 37 | N/mm² | 17 |
| Elongation | ISO 37 | % | 220 |
| Modul to 100% | ISO 37 | N/mm² | 4,5 |
| Tear resistance | ISO 34-1 B | N/mm | 11 |
| Tear resistance | ISO 34-1 C | N/mm | 30 |
| Compression set 22+2 h a 125°C | ISO 815-1 Met. B | % | 32 |
| Compression set 22 h a 150°C | ISO 815-1 Met. A | % | 13 |
| Compression set 70 h a 150°C | ISO 815-1 Met. A | % | 24 |
| Compression set 70 h a 23°C | ISO 815-1 Met. A | % | 9 |
| Compression set 22 h a 100°C | ISO 815-1 Met. A | % | 7 |
| Compression set 70 h a 100°C | ISO 815-1 Met. A | % | 10 |
| Compression set 22 h a 125°C | ISO 815-1 Met. A | % | 9 |
| Compression set 168 h a 150°C | ISO 815-1 Met. A | % | 44 |
| Compression set 1000 h a 110°C(in $H_2O$) | DVGW - W534 | % | 10,5 |
| Compression set 2000 h a 110°C(in $H_2O$) | DVGW - W534 | % | 15,5 |
| Compression set 3000 h a 110°C(in $H_2O$) | DVGW - W534 | % | 19,5 |
| TR Test TR10 | ISO 2921 | °C | -42 |
| TR Test TR50 | ISO 2921 | °C | -23 |
| Brittleness | ISO 812 | °C | -70 |
| Glass Transition | DSC | °C | -55 |
| Ozon resistance a 70h 40°C | ISO 1431-1 | 200pphm 50% all. | No brittle |



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| Change of Properties | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Hardness Shore A | | Tensile Strength % | | Elongation % | | Volume % | | Weight | |
| Medium | Time h | °C | Reference norm | Rqd. | Tested | Rqd. | Tested | Rqd. | Tested | Rqd. | Tested | Rqd. | Tested |
| Air | 70 | 100 | ISO 188 B | | +1 | | -8 | | -12 | | -0,1 | | -0,1 |
| Air | 70 | 125 | ISO 188 B | | +2 | | -15 | | -15 | | -0,2 | | -0,2 |
| Air | 70 | 150 | ISO 188 B | | +4 | | -25 | | -25 | | -0,4 | | -0,4 |
| Water | 70 | 100 | ISO 1817 | | -1 | | -4 | | -7 | | +1,3 | | +1 |
| Acetone | 70 | 23 | ISO 1817 | | -6 | | | | | | +5 | | +4 |
| After drying | 22 | 100 | ISO 188 B | | +1 | | | | | | -1 | | -0,5 |
| Air | 1008 | 125 | ISO 188 B | | +5 | | -6 | | -15 | | -1 | | |
| 50:50 water:G48 | 1008 | 125 | ISO 1817 | | -1 | | -4 | | -7 | | +2 | | +2 |

| Range Temperature | | | | |
|---|---|---|---|---|
| **Low static** | **Low dinamic** | **Long Time** | **Short Time** | **Medium** |
| -65°C | -45°C | +150°C | +160°C | Air, Water |

With approval W270 dtd 23/05/16 issued by institute TZW + FDA n. 721-B/2012 del 17/12/12 by Cerisie + WRAS (hot and cold water) n.1308515 ddt 28/08/13 issued by WRAS + EN681.1 WB WD n. 05/053/5114/1 issued by DVGW + CLP n. 11 CLP NY 010 ddt 1/09/11 issued by I.P.L. (France) + UL778 n. MH28238 ddt 18/12/06 issued by UL Inc. + W534 DW-52538BQ4480 DATED 11/02/11 issued by DVGW + NSF STD61 Official Listing ddt 7/01/08 + KTW D1, D2 n.326/15 of 07/01/16 issued by institute TZW + 3-A Sanitary Standard Number 18-03 Class II n* 626/2013 dated 17/10/13 issued by Cerisie + KIWA BRL-K17504 n. K80481/01 dated 01/12/2013 issued by KIWA + USP32<87>(citotoxicity tes at 37°C in vitro) Project n* 123390 dated 30/04/2014 issued by Bioservice.



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