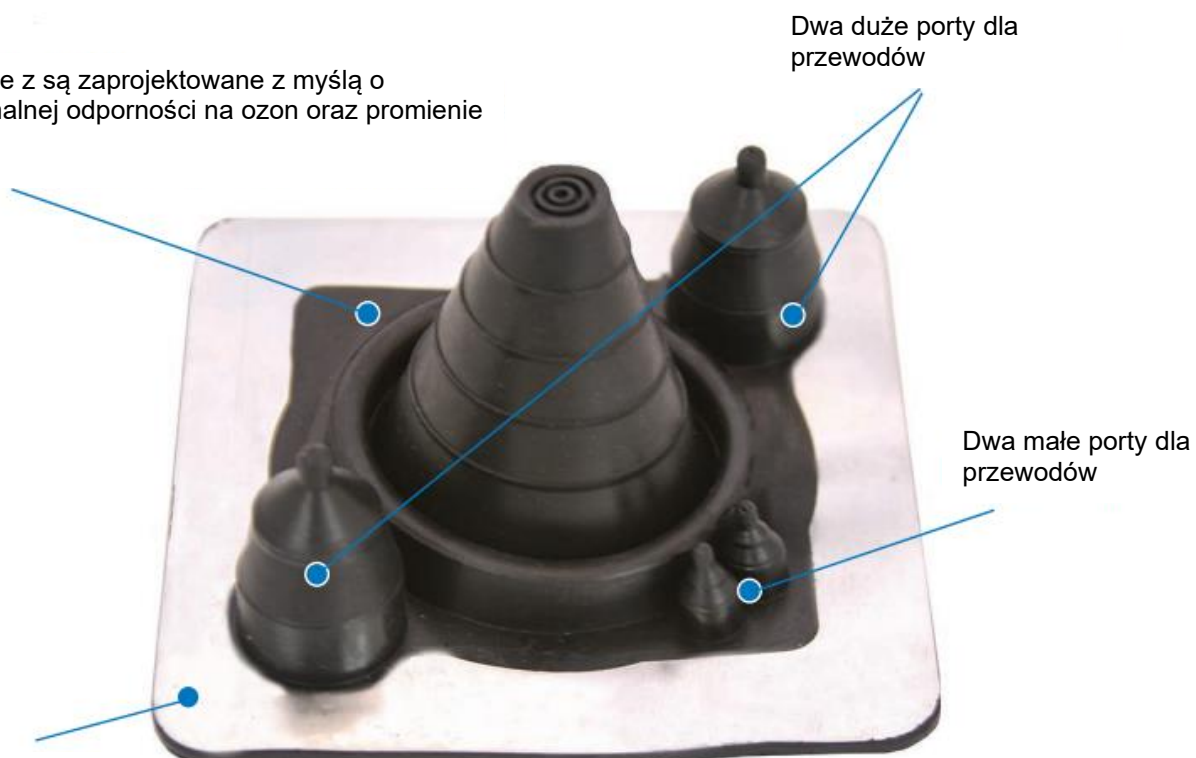


Master Flash® Solar Multi-Port MR

1.1 Master Flash® Solar Multi-Port MR – Karta Techniczna Produktu

- Master Flash® Square Vent Multi-Flash wykonany jest z gumy EPDM (etylene propylene diene monomer) lub silikonu. Zaprojektowany został specjalnie do zastosowań solarnych
- Podstawa kołnierza jest wzmocniona wstawką ze zwulkanizowanego aluminium, która umożliwia łatwe dopasowanie do geometrii pokrycia dachowego.
- Kołnierze uszczelniające przeznaczone są do uszczelniania wodoszczelnego wokół elementów instalacyjnych/kanałów penetrujących połąc dachu (tj. rury wentylacyjne, kanały solarne, przewody kominowe, i przewody elektryczne lub inne elementy przechodzące przez połąc dachową).
- Kołnierze Master Flash® mogą być stosowane na różnych rodzajach dachów metalowych, w tym profilowanych blachodachówkach, blachach płaskich, blachach trapezowych.

Kołnierze z są zaprojektowane z myślą o maksymalnej odporności na ozon oraz promienie UV

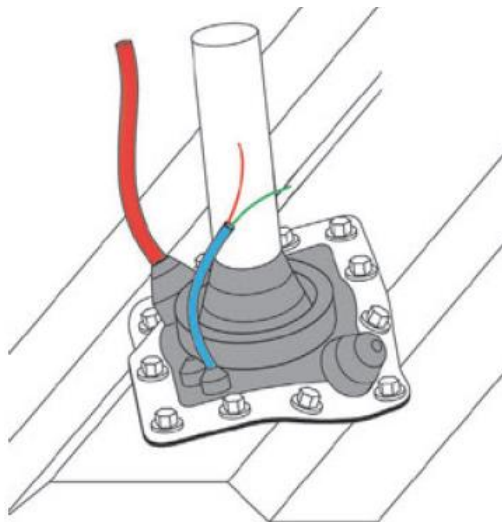


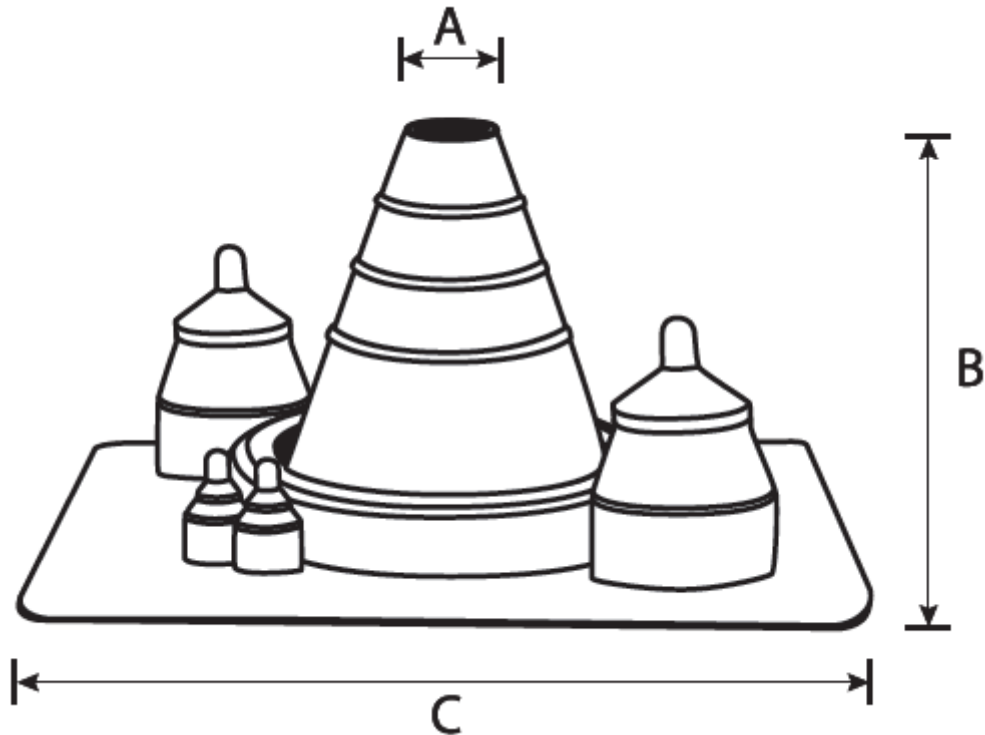
Podstawa z aluminium

Umożliwia lepsze dopasowanie kołnierza do geometrii poszycia dachowego

1.2 Master Flash® Solar Multi-Port MR – Specyfikacja materiału oraz rozmiary

| Master Flash® | EPDM 500 | Silicone |
|---------------------------------------|-------------------|-----------------|
| ADVANCED OZONE RESISTANCE tested to: | 70 h @ 500 pphm | 70 h @ 500 pphm |
| HIGH TEMPERATURE RESISTANCE | | |
| tested to: intermittent | +135°C (+275°F) | +260°C (+500°F) |
| continuous | +100°C (+212°F) | +225°C (+437°F) |
| LOW TEMPERATURE RESISTANCE tested to: | -55°C (-67°F) | -74°C (-101°F) |
| TENSILE SET maximum | 10 MPa (1450 psi) | 5 MPa (725 psi) |
| COMPRESSION SET maximum | 25% | 50% |





Master Flash® Solar Multi-Port

| No. | Pipe range | Material | Black EPDM Catalogue Number | A-Top Opening | B-Overall Height | C-Base Dimensions |
|-----|--|---------------------------------|-----------------------------|---------------|---------------------|----------------------|
| 1 | One center port 0" - 1 - 15/16" (0 - 49 mm) Pipe | Black or Grey EPDM, Silicone | SMP-MR101BA | Closed | 2 - 1/2" (63 mm) | 4 - 1/2" (114 mm) |
| | Two ports 1/64" - 3/8" (1 - 9 mm) pipe / cable | | | | | |
| | Two ports 3/16" - 15/16" (4 - 23 mm) pipe / cable | | | | | |

COMPOUND AND SPECIFICATION DATA FOR MASTER FLASH® BLACK EPDM

TYPICAL PHYSICAL PROPERTIES OF MF EPDM
 ASTM D2000 M3BA510 A14, B13, C12, F17, Z1, Z2, Z3, Z4, Z5.

| PROPERTY | | VALUE | TEST METHOD |
|------------------|--------------------------------|---|---------------------|
| BASE MATERIAL | | CROSS LINKED EPDM ETHYLENE PROPYLENE DIENE TERPOLYMER | N/A |
| COLOR | | BLACK | N/A |
| TEST LEVEL | | 3 | GRADE |
| TEST TEMPERATURE | | B 100° C | GRADE |
| VOLUME SWELL | | NO REQUIREMENT | CLASS |
| DUROMETER | | 50 (SHORE) | ASTM D 2240 |
| TENSILE STRENGTH | | 10 MPA (1450 psi) MINIMUM | ASTM D 412 |
| A14 | HEAT AGING | 70 hrs. @ 100° C Change in hardness Max +10 pts Change in tensile Max -25 % Change in ultimate elong. Max -25% | ASTM D 573 |
| B13 | COMPRESSION SET | 22 hrs. @ 70 ° C MAX 25 % | ASTM D 395 B |
| C12 | OZONE RESISTANCE | 70 hrs. @ 50 pphm | ASTM D 1171 |
| F17 | LOW TEMPERATURE BRITTLENESS | 3 MINUTES @ -40° C PASS | ASTM D 2137A, 9.3.2 |
| Z1 | TARGET HARDNESS | 55 +/-5 SHORE A | ASTM 2240 |
| Z2 | SPECIFIC RUBBER | EPDM | PASS |
| Z3 | HORIZONTAL FLAME RESISTANCE | NOT TO EXCEED 3 IN/ MINUTE | ASTM 2240 |

COMPOUND AND SPECIFICATION DATA FOR MASTER FLASH® SILICONE

TYPICAL PHYSICAL PROPERTIES OF MF SILICONE
 ASTM D2000 M4 GE 505 A19, B37, C12, F19, Z1, Z2, Z3, Z4, Z5, Z6, Z7.

| PROPERTY | | VALUE | TEST METHOD |
|---------------------|-----------------------------|--|---------------------|
| BASE MATERIAL | | SILICONE | N/A |
| COLOR | | TERRA COTTA/GRAY | N/A |
| TEST LEVEL | | 4 | GRADE |
| TEST TEMPERATURE | | 225° C | GRADE |
| VOLUME SWELL | | MAX 80% | CLASS |
| DUROMETER | | 50 (SHORE) | ASTM D 2240 |
| TENSILE STRENGTH | | 5 MPA (725 psi) MINIMUM | ASTM D 412 |
| ULTIMATE ELONGATION | | 250 % MINIMUM | ASTM 412 |
| A19 | HEAT AGING | 70 hrs. @ 225 C Change in hardness Max +10 pts Change in tensile Max -25 % Change in ultimate elong. Max -30% | ASTM D 573 |
| B37 | COMPRESSION SET | 22 hrs. @ 175° C MAX 25% | ASTM D 395 B |
| C12 | OZONE RESISTANCE | 70 hrs. @ 50 pphm 38° C 100% quality retention | ASTM D 1171 |
| F19 | LOW TEMPERATURE BRITTLENESS | 3 MINUTES @ -55° C (-67° F) | ASTM D 2137A, 9.3.2 |
| Z1 | TARGET HARDNESS | 55 SHORE A | ASTM 2240 |
| Z2 | SPECIFIC RUBBER | SILICONE | N/A |
| Z3 | HORIZONTAL FLAME RESISTANCE | NOT TO EXCEED 3 IN/ MINUTE | UL-94 |