

Materials and markings

Here you shall find the method of marking single and double seals, used in ANGA:

- [Single seals](#)
- [Double seals](#)

SINGLE SEALS

Shaft or sleeve diameter

Seal type

Component seals:

A4, A41, A3L, A3R, V, VT, VS, VB, VBT, US, US2, E1, E2 (EN 12756/DIN 24960)
A1, A1G, UV, A10, A11, A12, A13, B12, VSK, W

Cartridge (compact) seals:

BE2, BEQ, BP, BU, BC/BC2, BD, UST, USC, UVP, EP, GS, M1/M1L, MS

Construction

1. For standard seals, type of stationary ring:

A0, A5, E5, B0 (EN 12756 / DIN 24960)
E0, D0, F0, H0, H5

2. Embodiment number for a specific type dimension:

01, 02, 03,...

Rotating slide ring material

Stationary slide ring material

A	- Antimony impregnated carbon graphite
A1	- Antimony impregnated carbon graphite, "blistering" resistant
A3	- Antimony impregnated carbon graphite, for dry-running
B	- Resin impregnated carbon graphite
B6	- Resin impregnated carbon graphite, FDA certified
B8	- Resin impregnated carbon graphite, for dry-running, FDA certified
C6	- Electrographite, "blistering" resistant, FDA certified
Q	- Sintered silicon carbide (SiC)
Q1	- Reaction bonded silicon carbide (SiC-Si)
Q5	- Silicon carbide, diamond coated
S	- Chromium-molybdenum cast (1.4136)
U	- Tungsten carbide (Co-bonded)
U1	- Tungsten carbide (Ni-bonded)



U2	- Tungsten carbide (Co-bonded)
V	- Ceramics 99.5 % Al ₂ O ₃ (Al-Oxide)
V1	- Ceramics 97.5 % Al ₂ O ₃ (Al-Oxide)
Y	- Glass fibre reinforced (filled) PTFE

Secondary, flexible seal material

E	- Ethylene-propylene elastomer (EPDM)
E3	- Ethylene-propylene elastomer (EPDM), FDA certified
E4	- Ethylene-propylene elastomer (EPDM), for hot water, FDA certified
K	- Perfluorcarbon elastomer (FFKM)
K9	- Perfluorcarbon elastomer (FFKM), FDA certified
N	- Chloroprene elastomer (CR)
P	- Nitrile elastomer (NBR)
P3	- Nitrile elastomer (NBR), FDA certified
S	- Silicone elastomer (MVQ)
V	- Fluorcarbon elastomer (FKM)
V3	- Fluorcarbon elastomer (FKM), FDA certified
T	- Teflon ® (PTFE)
M	- Fluorcarbon elastomer FEP encapsulated (FKM/FEP)
G	- Graphite

Spring material

G	- Stainless steel (1.4310)
M	- Hastelloy ® C-4 (2.4610)

Material of other parts

F	- Stainless steel (1.4541)
G	- Stainless steel (1.4571)
G1	- Stainless steel URANUS ® (1.4539)
G2	- Stainless steel "Duplex" (1.4462)
G4	- Stainless steel "Super Duplex" (1.4410)
M	- Hastelloy ® C-4 (2.4610)
M1	- Monel ® (2.4360)
T2	- Titanium (3.7035)

DOUBLE SEALS

Shaft or sleeve diameter

Seal type

Component seals:

VD, VBD (EN 12756 / DIN 24960)

Cartridge (compact) seals:

BED, BEH, BPD, BUV, USP, EPD, USP, M2/M2L, M3/M3L, M4/M4L, GF, GK

Construction

Materials of
internal seal parts
(medium side)

Rotating slide ring material

Stationary slide ring material

A	- Antimony impregnated carbon graphite
A1	- Antimony impregnated carbon graphite, "blistering" resistant
A3	- Antimony impregnated carbon graphite, for dry-running
B	- Resin impregnated carbon graphite
B6	- Resin impregnated carbon graphite, FDA certified
B8	- Resin impregnated carbon graphite, for dry-running, FDA certified
C6	- Electrographite, "blistering" resistant, FDA certified
Q	- Sintered silicon carbide (SiC)
Q1	- Reaction bonded silicon carbide (SiC-Si)
Q5	- Silicon carbide, diamond coated
S	- Chromium-molybdenum cast (1.4136)
U	- Tungsten carbide (Co-bonded)
U1	- Tungsten carbide (Ni-bonded)
U2	- Tungsten carbide (Co-bonded)
V	- Ceramics 99.5 % Al2O3 (Al-Oxide)
V1	- Ceramics 97.5 % Al2O3 (Al-Oxide)
Y	- Glass fibre reinforced (filled) PTFE

Secondary, flexible seal material

E	- Ethylene-propylene elastomer (EPDM)
E3	- Ethylene-propylene elastomer (EPDM), FDA certified
E4	- Ethylene-propylene elastomer (EPDM), for hot water, FDA certified
K	- Perfluorcarbon elastomer (FFKM)
K9	- Perfluorcarbon elastomer (FFKM), FDA certified
N	- Chloroprene elastomer (CR)
P	- Nitrile elastomer (NBR)
P3	- Nitrile elastomer (NBR), FDA certified
S	- Silicone elastomer (MVQ)
V	- Fluorcarbon elastomer (FKM)
V3	- Fluorcarbon elastomer (FKM), FDA certified
T	- Teflon ® (PTFE)
M	- Fluorcarbon elastomer FEP encapsulated (FKM/FEP)
G	- Graphite



ANGA

Spring material

G	- Stainless steel (1.4310)
M	- Hastelloy ® C-4 (2.4610)

Material of other parts

F	- Stainless steel (1.4541)
G	- Stainless steel (1.4571)
G1	- Stainless steel URANUS ® (1.4539)
G2	- Stainless steel "Duplex" (1.4462)
G4	- Stainless steel "Super Duplex" (1.4410)
M	- Hastelloy ® C-4 (2.4610)
M1	- Monel ® (2.4360)
T2	- Titanium (3.7035)

Materials of external seal parts (atmosphere side)

Rotating slide ring material

Stationary slide ring material

A	- Antimony impregnated carbon graphite
A1	- Antimony impregnated carbon graphite, "blistering" resistant
A3	- Antimony impregnated carbon graphite, for dry-running
B	- Resin impregnated carbon graphite
B6	- Resin impregnated carbon graphite, FDA certified
B8	- Resin impregnated carbon graphite, for dry-running, FDA certified
C6	- Electrographite, "blistering" resistant, FDA certified
Q	- Sintered silicon carbide (SiC)
Q1	- Reaction bonded silicon carbide (SiC-Si)
Q5	- Silicon carbide, diamond coated
S	- Chromium-molybdenum cast (1.4136)
U	- Tungsten carbide (Co-bonded)
U1	- Tungsten carbide (Ni-bonded)
U2	- Tungsten carbide (Co-bonded)
V	- Ceramics 99.5 % Al ₂ O ₃ (Al-Oxide)
V1	- Ceramics 97.5 % Al ₂ O ₃ (Al-Oxide)
Y	- Glass fibre reinforced (filled) PTFE

Secondary, flexible seal material

E	- Ethylene-propylene elastomer (EPDM)
E3	- Ethylene-propylene elastomer (EPDM), FDA certified
E4	- Ethylene-propylene elastomer (EPDM), for hot water, FDA certified
K	- Perfluorcarbon elastomer (FFKM)
K9	- Perfluorcarbon elastomer (FFKM), FDA certified
N	- Chloroprene elastomer (CR)
P	- Nitrile elastomer (NBR)
P3	- Nitrile elastomer (NBR), FDA certified
S	- Silicone elastomer (MVQ)
V	- Fluorcarbon elastomer (FKM)
V3	- Fluorcarbon elastomer (FKM), FDA certified
T	- Teflon ® (PTFE)
M	- Fluorcarbon elastomer FEP encapsulated (FKM/FEP)
G	- Graphite

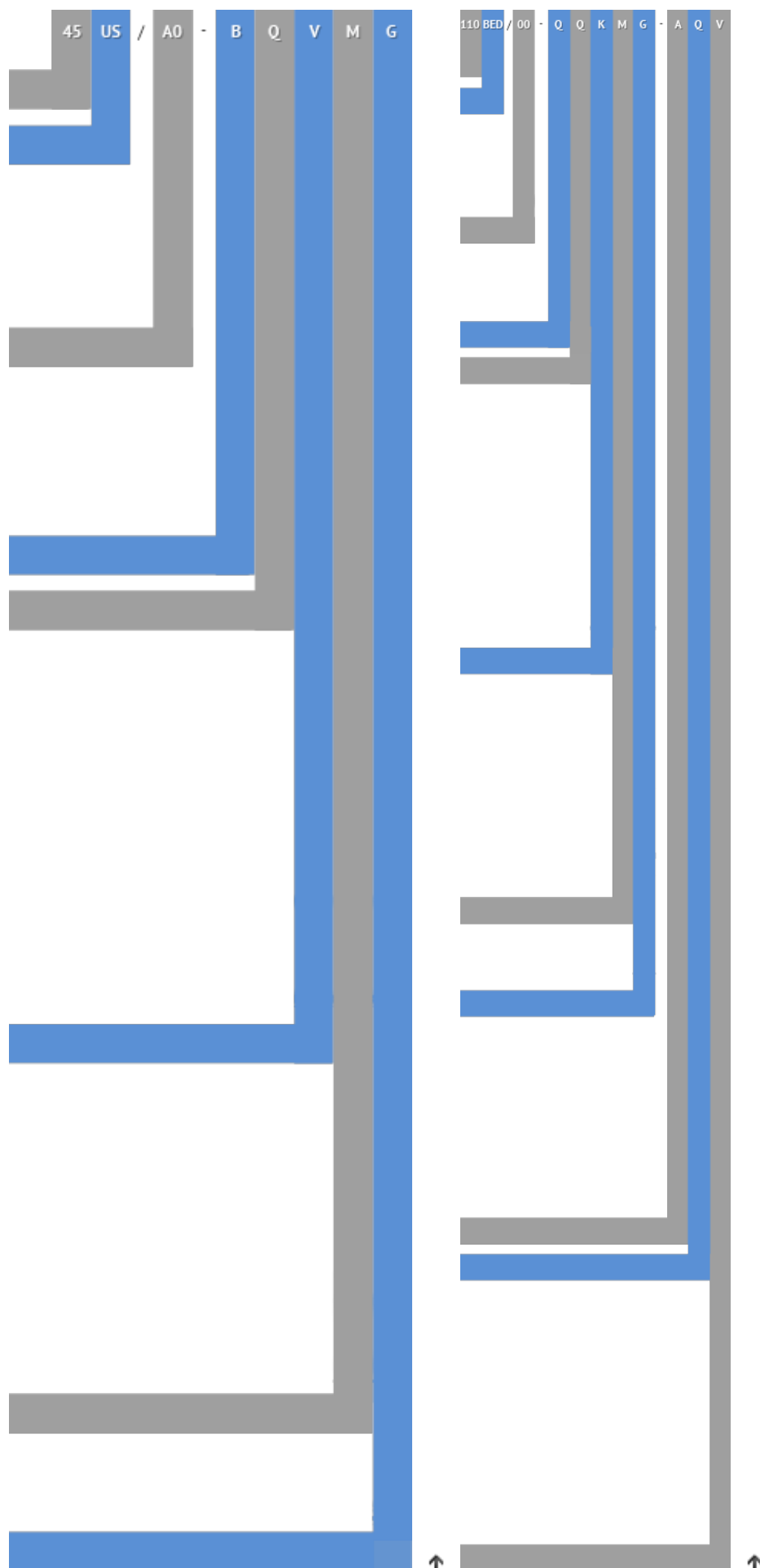
Copyright trade names marked above with the ® symbol are held respectively by:

Teflon® – by E. I. du Pont de Nemours and Company,

Hastelloy® – by Haynes International, Inc.

Monel® – by Special Metals Corporation.

Uranus® – by Arcelor Mittal S.A.





ANGA