HITEC® NBR 70.10-02

Angst+Pfister

Sealing technology
Technical Data Sheet

Material name, short description	NBR
Material name, based on technical standards	Acrylic-Butadiene-Rubber
Material description / intended use	Elastomer with good resistance to mineral and vegetable oils/greases, alkalis, alcohols, gas, water
Color	black
Compound code	NBR 70.10-02
Old, but still valid compound code	NBR 70.5/P5F
Crosslinking/curing agent	sulfur
Manufacturing process	moulded parts
Remarks	ACN content 33% ASTM code: ASTM D2000 SAEJ200-M2 BG714 A14 B14 EA14 EF11 EF21 EO14 EO34

Mechanical properties

Hardness nominal	70 ±5 Shore A
Density nominal	1.3 ±0.03 g/cm³
Tensile strength	14 N/mm² ASTM D 412-C
Elongation at break	270 % ASTM D 412-C
Compression set	18 % ASTM D 395-B 22 h, 125 °C
	23 % ASTM D 395-B 70 h, 100 °C
Tear resistance	40 N/mm ASTM D 624-B

Thermal properties

Operating temperature min.*	-20 °C
Operating temperature max.*	125 °C
TR 10 value	-20 °C ASTM D 1329
Brittleness point	-20 °C

** Approximate value, dependent on the application*

Storage in medium 1

Medium	IRM 901 Oil (ASTM 1)
Test parameter	70 h, 100 °C
Test standard	ASTM D 471
Value change	Hardness: 0 Points Tensile strength: -24 % Elongation at break: -29 % Volume: -3 %

Storage in medium 2

Medium	IRM 903 Oil (ASTM 3)
Test parameter	70 h, 100 °C
Test standard	ASTM D 471
Value change	Hardness: -9 Tensile strength: -20 % Elongation at break: -18 % Volume: +15 %

Air aging 2

Test parameter	70 h, 110 °C
Test standard	ASTM D 573
Value change	Hardness: +7 Points Tensile strength: +5 % Elongation at break: -34 %

In compliance with **RoHS** and **REACH** directives.
This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.

Storage in medium 3

Medium	Water ASTM
Test parameter	70 h, 100 °C
Test standard	ASTM D 471
Value change	Hardness: -6 Points Tensile strength: -9 % Elongation at break: -10 % Volume: +8 %

Air aging 1

Test parameter	70 h, 100 °C
Test standard	ASTM D 573
Value change	Hardness: +5 Points Tensile strength: 0 % Elongation at break: -20 %

Approvals / Compliance

Drinking water	NSF 61 for drinking water cold and warm up to 85°C
	ACS (DGS/VS4 n° 99/217 dated 12/04/1999 and DGS/VS4 n° 2000/232 dated 27/04/2000
	CLP (DGS/VS4 n°99/217 dated 12/04/1999 and DGS/VS4 n°2000/232 dated 27/04/2000
	D.M. 06/04/04 n° 174
	DVGW W270 for drinking water
	ÖNORM (B 5014-1) for drinking water cold and warm up to 85°C
	UBA Elastomer-Guideline cold 23°C and hot water up to 85°C
	WRAS (BS 6920) for drinking water cold water 23 °C
Food & Bevarage	FDA CFR 21 - 177.2600 a) - f)
	D.M. 21/03/1973 (Migration test)
	Dlgs. 25.01.1992 n.108 Art.2 (ex. DPR 777/82 art 2) - Complies with Arsenic content limits
	EC 1935/2004 (excl. article 15, based on FDA) and EC Regulation 2023/2006 (GMP)
	GB 4806.11-2016 (Migration test)
Oil & Gas	DVGW EN 549 B1 / H3
Others	PAH Category 2 (AfPS GS 2019:01)
	ADI free (free of Animal Derived Ingredients) resp. TSE/BSE related substances
	DEHP, free of Phthalates

ATTESTATION DE ACS CONFORMITÉ SANITAIRE

ADI ANIMAL DERIVED INGREDIENT free

DVGW

EC No.1935:2004

FDA

GB

NSF

UBA

WRAS Water Regulations Advisory Service

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