Atmosit-Compact

Abridged Version ALI

Formed-in-Place-Gasket (FIPG Sealant) High Viscosity, no Contraction, Dimensional Stable Sealing Surface $\sim -\nabla\nabla\nabla\nabla$ Flange Width $\geq 2 \text{ mm}$

Basis: Silicone Rubber

Status: 2002-05-24

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Product Description

Atmosit-Compact is a solvent free, high viscosity, one component sealant based on neutral curing silicone rubber, which cures by reaction with moisture to a rubber-like firm mass. Due to the good sag resistance, the product can be applied to both horizontal and vertical surfaces. The skin formation and curing times are dependent on humidity and temperature, and the curing time also depends on joint depth. By increasing the temperature and moisture these times can be reduced; low temperature as well as low moisture retard the process.

After curing Atmosit-Compact demonstrates excellent resistance against oil and other liquid media during the occurring temperatures.

Both surfaces have full metal-to-metal contact. Tolerances and surface roughness will be equalised by the pasty sealant which cures to an elastic silicone rubber based gasket: formed-in-place gasket without relaxing which makes any later tightening of the screws unnecessary.

On parts which are only mounted after curing of Atmosit-Compact the material acts like a standard gasket also bridging larger tolerances.

Advantages

- 1. Because Atmosit-Compact gets its final shape only after mating of the surfaces it does not show the typical disadvantages of standard gaskets arising even prior to application:
 - Ageing Contraction Deformation Breaking
- 2. One sealant instead of numerous gaskets simplifies inventory particularly in the maintenance field.
- 3. Gaskets require a certain thickness, but cannot guarantee a good, effective compression seal despite their thickness and large area if the surfaces are too rough. They rather require additional liquid sealants like Atmosit or others. When using Atmosit-Compact the tops of the rough metal surfaces have metal-to-metal contact while the silicone sealant solidly fills the low points or voids thus sealing 100 %.
- 4. Gaskets will relax eventually causing torque loss. No relaxing with Atmosit-Compact because of the metal-to-metal contact. Relative movements will be eliminated by the elasticity.

Application Areas

Atmosit-Compact is used as FIPG for replacing traditional gaskets (e.g. those made from asbestos, paper, rubber, cork, etc.), for sealing jobs with a spacer function or as an ideal seal with optimum surface contact on housings or housing lids, particularly for increased temperatures.

Typical application areas are for instance oil pan covers, thermostat housings, valve covers, axle covers, etc.

Technical Data

Colour:	black
Consistency:	paste
Density:	approx. 1.5 g/cm ³
Solids:	100 %
Curing mechanism:	humidity curing

Curing system:	oxime
Skin formation time:	approx. 5–15 mins
(DIN 50014 standard climate:	23°C, 50 % rh)
Shore-A-hardness (DIN 53505):	20-25
In service temperature range:	-40°C to 200°C (depending on medium)
Short exposure (up to 1h):	220°C

Preliminary remark

Prior to application it is necessary to read the Safety Data Sheet for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labelling, the relevant precautions should always be observed.

Pretreament

The substrates to be sealed must be clean, dry, oil and grease free; a thin oil film, however, does not interfere the tightness. In most cases wiping off with a dry and clean cloth is sufficient.

Application

Atmosit-Compact is applied as a thin bead to one surface, the other surface is matched and srewed according to regulations. The sealant is spread by pressing and thus fills all low points whereas some points have metal-to-metal contact. Finally the sealant film cures to a rubber elastic gasket.

Matching of the parts should occur within 15 minutes unless a complete curing is desired. Heavier skin formation can cause problems in a tight seal.

Matching of the parts can also be made after curing – assuming an even surface layer. In those cases Atmosit-Compact will act as a gasket bonded to the substrate. Parts sealed in such a way can easily be dismounted.

Atmosit-Compact can be directly applied from cartridges employing standard air or hand operated guns. Teroson recommends the use of

- Teleskop Pistol Power-Line Art.-No. 141.84 S
- Teroson Staku Hand Pressure Pistol Art.-No. 167.65 Y

In the case of compressed air application a pressure of 2–5 bar is required.

Storage		
Frost-sensitive		no
Recommended storage temp.		15°C to 20°C
Shelf-life	12 months	
Packaging		
Tube	75 ml	ArtNo. 112.23 Z (D)
Cartridge	310 ml	ArtNo. 112.30 G (D)
Hazard Indications/		
Safety Recommendations/		see Safety Data Sheet
Transport Regulations		-

Important

The above data, particularly the recommendations for application and use of our products are based on our knowledge and experience. Due to different materials and conditions of application which are beyond our knowledge and control we recommend strongly to carry out sufficient tests in order to ensure that our products are suitable for the intended processes and applications. Except for wilful acts any liability based on such recommendations or any oral advice is hereby expressly excluded.

This Technical Data Sheet supersedes all previous editions.

Germany:	UK:
	Henkel Loctite Adhesives Ltd. Watchmead
Henkel KGaA D-40191 Düsseldorf	Welwyn Garden City Herfordsbire Al. 7.1.IB
Telefon (06221) 704-0	Telephone (01707) 35 88 00
Telefax (06221) 704-698	Teletax (01707) 35 89 00