

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: LOXEAL 58-11

Other Means of Identification: Mixture

Other Name:

7170583 LOXEAL 58-11 HIGH PRESSURE THREAD SEALANT 100 mL
7170582 LOXEAL 58-11 HIGH PRESSURE THREAD SEALANT 250 mL
7170581 LOXEAL 58-11 HIGH PRESSURE THREAD SEALANT 50 mL

Recommended Use of the Chemical and Restriction on Use: Anaerobic adhesive and sealant

Details of Manufacturer or Importer:

Bromic Group
10 Phiney Place
Ingleburn NSW 2565 Australia

Phone Number: 612 9426 5222

Emergency telephone number: 1300 276 642

2 . HAZARDS IDENTIFICATION

Hazardous Nature:

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Flam. Liq. 4 H227 Combustible liquid.

Signal Word Warning

Hazard Statements

H227 Combustible liquid.

Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national regulations.

3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:

80-15-9	α,α -dimethylbenzyl hydroperoxide, Cumene hydroperoxide Org. Perox. EF, H242; Acute Tox. (Inhalation) 3, H331; STOT RE 2, H373; Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. (Oral) 4, H302; Acute Tox. (Dermal) 4, H312; Flam. Liq. 4, H227	0.3-<1%
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4 . FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

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Eye Contact:

In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion:

If swallowed, rinse mouth with water. Give a glass of milk. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Foam, dry chemical, carbon dioxide and water spray.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and other toxic fumes.

Combustible liquid class 1.

Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed. Protect from direct sunlight, heat, sparks, open flames and hot surfaces. Do not expose to temperatures exceeding 25 °C. Keep away from strong oxidising agents, strong acids and metals. To avoid contaminations do not refill containers with used product.

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8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

98-82-8 cumene

NES	Short-term value: 375 mg/m ³ , 75 ppm Long-term value: 125 mg/m ³ , 25 ppm Sk
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Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

Respiratory Protection:

Respiratory protection is not required under normal use conditions.

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Butyl rubber (0.7 mm, breakthrough time 300 min (EN 374)), PE or nitrile gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.

When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Viscous liquid
Colour:	Yellow
Odour:	Slightly pungent
Odour Threshold:	No information available
pH-Value:	4 - 6
Melting point/Melting range:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	> 100 °C (COC/DIN/ISO 2592)
Flammability:	Combustible Liquid Class 1
Auto-ignition Temperature:	>380 °C
Decomposition Temperature:	Not determined.
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure at 20 °C:	< 0.5 mbar (DIN 51616)
Density at 20 °C:	1-1.1 g/cm ³ (DIN 51757)
Solubility in Water:	Insoluble
Viscosity:	Viscous liquid
Organic solvents:	0.0 %

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VOC: <3.00 %

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10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Polymerisation may occur at temperatures > 100 °C.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents, strong acids and metals.

Hazardous Decomposition Products: Oxides of carbon and other toxic fumes.

11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:

80-15-9 α,α -dimethylbenzyl hydroperoxide, Cumene hydroperoxide

Oral	LD ₅₀	382 mg/kg (rat)
Dermal	LD ₅₀	500 mg/kg (rat)
Inhalation	LC ₅₀ /4 h	220 mg/l (rat)

Acute Health Effects

Inhalation: No adverse health effects expected.

Skin: May cause skin irritation.

Eye: May cause eye irritation.

Ingestion: No adverse health effects expected.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Based on classification principles, the classification criteria are not met.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects:

Prolonged contact with skin, especially with grazes, may cause sensitisation and dermatitis.

Existing Conditions Aggravated by Exposure: No information available

12 . ECOLOGICAL INFORMATION

Ecotoxicity: No information available

Aquatic toxicity: Slightly hazardous for water.

Persistence and Degradability: No information available

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Bioaccumulative Potential: No information available**Mobility in Soil:** No information available**Other adverse effects:** No information available

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number Not regulated**Proper Shipping Name** Not regulated**Dangerous Goods Class** Not regulated**Packing Group:** Not regulated**Marine pollutant:** No

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:80-15-9 α,α -dimethylbenzyl hydroperoxide, Cumene hydroperoxide**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**

Not Scheduled.

16 . OTHER INFORMATION

Date of Preparation or Last Revision: 26.07.2016**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au**Abbreviations and acronyms:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds

LC₅₀: Lethal concentration, 50 percentLD₅₀: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Flam. Liq. 4: Flammable liquids, Hazard Category 4

Org. Perox. EF: Organic peroxides, Types E, F

Acute Tox. (Oral) 4: Acute toxicity, Hazard Category 4

Acute Tox. (Inhalation) 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

The information contained in this material safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Bromic Group makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own

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determinations as to the suitability of the information provided to the particular circumstances in which the product is used.

Description

Anaerobic curing adhesive for sealing of metal thread joints only.

Approved for Gas (DVGW, DIN-EN 751-1), high pressure gas and GLP (Australian Gas Association - Approval No. 5048) for working pressure up to 20 Bars.

Approved for use with gaseous oxygen up to 10 Bars and +60°C (BAM 1432/95 4-755).

WRAS listed for contact with wholesome (potable) water, approval number 1310513.

NSF registered in cat. P1(n. 141234) as acceptable for use as a sealant in and around food processing area

It replaces PTFE tape and yarn and gives instant sealing against moderate pressure.

It seals against gas, water, LPG, hydrocarbons, oils and other chemicals.

Thixotropic property prevents migration of sealant from thread before or during curing.

Shock and vibrations resistant, sealing properties unaffected over the temperature range from -55°C to +150°C.

Physical properties

Composition :	anaerobic methacrylate
Colour :	yellow
Fluorescence :	under blue light
Viscosity (+25°C - mPa s) :	20.000 - 80.000 thixotropic
Specific weight (+25°C - g/ml) :	1,1
gap filling :	M56 / 2" / 0,30 mm
Flash point :	> +100°C
Shelf life +25°C :	1 year in original unopened packaging

Curing performance

Curing rate depends on the assembly clearance, material surfaces and temperature. In case of passive surfaces and/or low temperature a fast cure can be obtained using Loxeal activator 11.

Curing properties (typical)

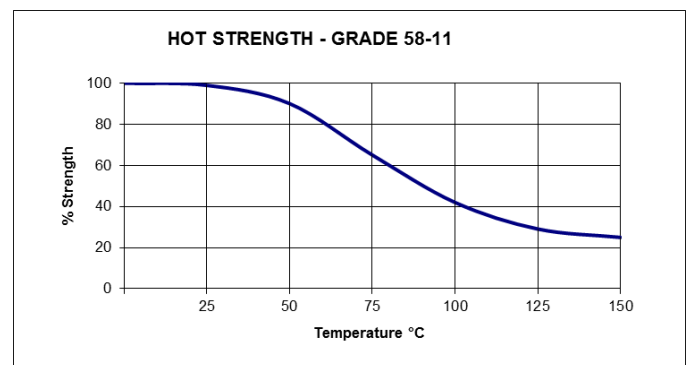
Bolt M10 x 20 Zn - quality 8.8 - nut h = 0,8 d at +25°C :	
Handling cure time :	15 - 30 minutes
Functional cure time :	1 - 3 hours
Shear strength(ISO 10123) :	6 - 13 N/mm ²
Locking torque (ISO 10964) :	
- breakaway :	18 - 24 N m
- prevailing :	7 - 14 N m
Temperature range :	-55°C/ +150°C

Environmental resistance

Hot strength

The graph below shows the mechanical strength vs. temperature.

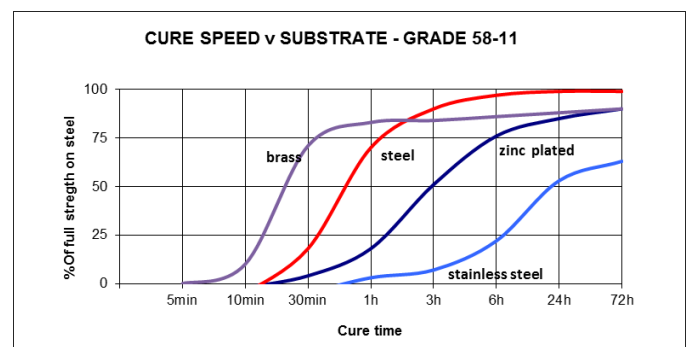
ISO 10964 - Bolt M10 x 20 Zn - quality 8.8 - nut h = 0,8 d at +25°C - pre-torque 5 N m



Cure speed v substrate

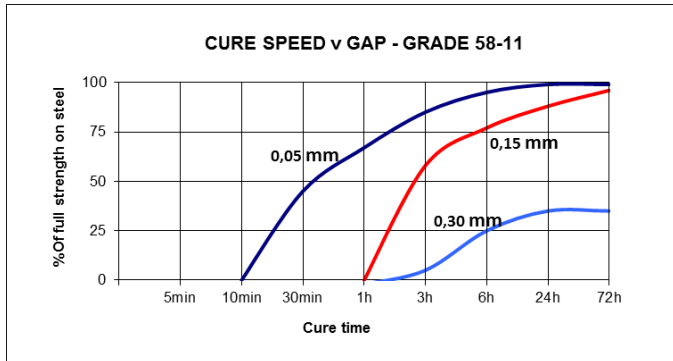
The graph hereunder shows the breakaway strength development of the product (with time) on nuts/bolts M10 x 20 in comparison among several substrates.

Tested in accordance with ISO 10964 at + 25°C.



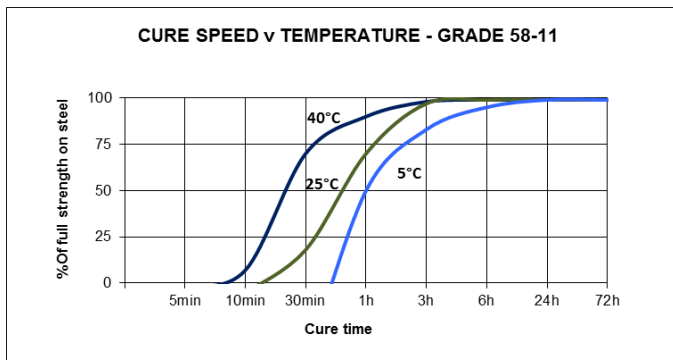
Cure speed v gap

The graph below shows the product shear strength (as %) at different controlled gaps. Steel pins/collars, tested in accordance with ISO 10123 at + 25°C.



Cure speed v temperature

The following graph shows the breakaway strength of the product (as %) at different temperatures. Steel nuts/bolts M10 x 20, tested according to ISO 10964.

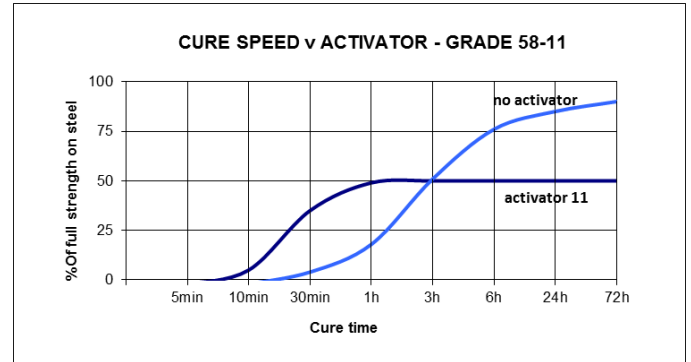


Cure speed v activator

Curing could be slowed down by the nature of the substrate or large gaps; cure speed can be improved by applying appropriate activator to the substrate(s).

The following graph shows the breakaway strength of the product (as %) and the cure speed developments using our activator 11 compared to the ones with no activator.

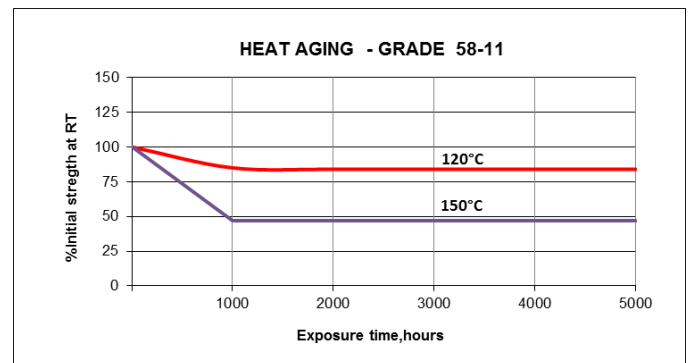
Zn nuts/bolts M10 x 20, tested according to ISO 10964 at a temperature of + 25°C.



Heat aging

The graph below shows the strength resistance behavior as a function of temperature/time .

Zn nuts/bolts M10 x 20 - (pre-torque of 5 N m, cured 7 days at +25°C) - aged at temperature indicated and tested at +25°C according to ISO 10964.



Chemical resistance

Aged under conditions below after 24 hours from polymerisation at indicated temperature.

Substance	°C	Resistance after 100 h	Resistance after 500 h	Resistance after 1000 h
Motor oil	125	excellent	excellent	excellent
Gear box oil	125	excellent	excellent	excellent
Gasoline	25	excellent	excellent	excellent
Water/glycol 50%	87	excellent	excellent	good
Hydraulic oil	25	excellent	excellent	good

For information on resistance with other chemicals, contact Loxeal Technical Service.

General instructions for use

The product is recommended for use on metal thread joints only.

Clean and degrease parts before bonding with Loxeal Cleaner 10.

Cut back stepped nozzle to give required bead size. Do not contaminate adhesive with metal.

Apply continuous bead circumferentially, 1-2 threads from the leading edge. Ensure sufficient is applied to give a complete seal.

Assemble and tighten the joint.

Wipe off any uncured excess adhesive from outside the joint.

Allow to cure. The time taken to reach a full cure will depend on the metals being used.

TIME TO CURE FOR USE WITH WHOLESOME (POTABLE) WATER

For Brass, Copper and Cast Iron allow 24 hours at +21.1°C.

For Stainless Steel and Aluminium allow 7 days at +21.1°C.

WRAS Approval number: 1310513 for use with cold and hot water up to +85°C.

Liquid product can damage coating, some plastics and elastomers and late stress-cracking events might be induced if used with some thermoplastics.

For application on non metal materials, contact Loxeal Technical Service. For disassembly, use normal tools and eventually heat pieces at +150°C/+250°C, remove any residue of cured product mechanically and clean parts with Acetone

Storage

Keep product in a cool and dry room at no more than +25°C.

To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact Loxeal Technical Service

Safety and handling

Consult Material Safety Data Sheet before use.

Note

The data contained herein, obtained in Loxeal laboratories, are given for information only; if specifics are required, please contact Loxeal Technical Department.

Loxeal ensures abiding quality of supplied products according to its own specifics. Loxeal cannot assume responsibility for the results obtained by others which methods are not under Loxeal control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Loxeal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxeal products. Loxeal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.

Certificate of Approval

This certificate confirms that the company below complies with the following standard(s):

Company Name	Bromic Pty Ltd	WaterMark CofC number:	GM-WM-040164-I01-R00
Company Other Name		Type of Certification	Watermark Level 1
Client ID	100177	Certification Standard	ATS 5200.014-2004 : Technical Specification for plumbing and drainage products - Jointing materials
Scheme	WaterMark Certification Scheme Level 1		

CERTIFICATE DATES:

Original / Initial	29/09/2015	Last Certificate update	29/09/2015
Certification / Re Certification	14/09/2015	Expiry	14/09/2020
Last Certification Decision	29/09/2015		

APPROVED COMPANY/SITE ADDRESS(ES):

10 Phiney Place Ingleburn 2565 NSW Australia
Via Marconato, 2 Cesano Maderno 20811 Milan Italy

This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions. This Certificate of Approval remains the property of Global-Mark Pty Ltd, Company Number: ACN.108-087-654. The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification.



Certification Manager



Global-Mark Pty Ltd, 407, 32 Delhi Road, North Ryde NSW 2113, Australia - Copyright 2005



Model(s) on which the WaterMark logo may be applied by the certificate holder as a declaration of compliance by the certificate holder. *In placing the authorised mark on the product, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. In issuing this Certificate, Global-Mark has relied on the expertise of external bodies (laboratories, and technical experts).*

Model Identification	Model Name	Brand Name	Product Description/Attributes	Product Category	Date Endorsed
Loxal 58-11	Loxal 58-11	Loxal	Anaerobic Adhesive, Maximum Temperature 80 Degrees C	Material in contact with drinking water: Sealant	08/09/2015

Comments:

AS/NZS 4020-2005

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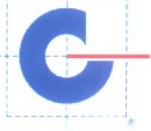
Certification Manager





AGA CERTIFIED PRODUCT

JAS-ANZ



www.jas-anz.org/register

Certificate Holder: **BROMIC PTY LTD**

ABN/ACN No. (if applicable): **001 648 979**

Manufacturer: **LOXEAL ENGINEERING ADHESIVES - ITALY**

Agent (if applicable): **N/A**

Type of Component: **THREAD SEALANT
CLASS III MWP 2000kPa
Temperature Range: -10°C to 150°C**

Model No. & Description: **LOXEAL
58-11**
(Refer www.aga.asn.au for more details)

Relevant Standard(s): **AS 4623 - 2008**

This is to certify that the particular **COMPONENT** specifically described herein and supplied to The Australian Gas Association (hereafter called the AGA) by the Certificate Holder named above has been subject to "type-testing" and assessed by the AGA to comply with the requirements of the AGA's Product Certification Scheme for Type Tested Gas Products.

This Certificate is issued on the express conditions that:

- (i) The Certificate Holder undertakes to comply with the Rules Governing The AGA's Product Certification Scheme (hereafter called the Rules Governing);
- (ii) This Certificate remains the property of the AGA; and
- (iii) The AGA reserves the right to cancel this Certificate in accordance with the Rules Governing, and in such an event the Certificate Holder undertakes to surrender the Certificate to the AGA upon request.



Reviewing Officer

Certificate Authorised

Certificate first issued: **15 September 1993**

Certificate No: **5048**

This copy valid from: **24 September 2010**

Refer specification issue: **03**

Date: 05 May 2009

VOC DECLARATION

We declare that the VOC content of the following item(s) is as follows:

Product name	VOC content (g/l) – (%)	Test method
Loxeal 58-11	7,36 g/l – 0,77%	SCAQMD 1168 (*)
Loxeal 18-10	1,49 g/l – 0,15%	SCAQMD 1168 (*)

(*) Determined on cured product

Best regards.



Loxeal Srl – Technical Dept.

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