SANITISE Ireland

ENSURING A **SANITISED ENVIRONMENT**

TOUCH
CERTIFICATION

ENSURING A **SANITISED ENVIRONMENT**

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Safeguarding your living & working environment!

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Issue 3 – 12/07/2013
E.Shannon

Certificate of Analysis

SAMPLE DETAILS BROMOCO TOUCH COATING

Page 1 of 1

CUSTOMER: BROMOCO International Ltd

MANUFACTURER

Customer Ref. 80/102

DATE RECEIVED: 24/04/2014

Method of Analysis: Determination of Antibacterial Activity using ISO 22196: 2011

DATE ANALYSED: 27/02/2014
DATE REPORTED: 24/04/2014
UNITS OF RESULTS: Colony Forming Units/CM^{-2}

SAMPLE	TEST ORGANISM	CONTACT TIME		REDUCTION (INITIAL)	
		0 hours	24 hours	LOG_{10}	%
FACE COATED DISK. COATING EPC7460A	*E. coli*	1.20E +04	<11.11	>4	>99.99
FACE COATED SQUARE. COATING EPC7460A	*E. coli*	1.20E +04	1.25E +02	1.98	98.96
FACE COATED DISK. COATING EPC7460A	MRSA	1.50E +04	6.66E +02	1.35	95.56
FACE COATED SQUARE. COATING EPC7460A	MRSA	1.50E +04	1.50E +02	2	99

The above data describe the difference in the population sizes of the test organisms, relative to the initial (0 hours) population, following contact with the surface of the samples detailed in this CoA for 24 hours at 35°C under a RH of >95% relative to the initial population. These conditions are those specified by the ISO 22196: 2011 method of analysis.

Comment: The samples FACE COATED DISK. TOUCH COATING and FACE COATED SQUARE. TOUCH COATING **have** achieved the minimum antibacterial performance requirement of 95% 'Reduction against the Initial for *E.coli* and MRSA according to ISO 22196: 2011 analysis.

,

Technical Director

Richard Hastings

ISO 9001 REGISTERED FIRM

ISO 14001 REGISTERED FIRM

2 Viral Test Testing

Safeguarding your living & working environment!

TOUCH coating technology to reduce feline Coronavirus Strain

As a result of the current pandemic, we are increasingly being asked by customers about whether TOUCH coating technology is effective against coronavirus.

As with previous testing, it is our duty of care to inform our customers what our technology can and cannot achieve, and as always this is based on proven data. Recently, our biochemists have worked closely with an independent laboratory to test our technology against a strain of feline **coronavirus** in order to provide our customers with continued confidence in the efficacy of our technology. As a result of this testing, Touch coating technology was proven effective with a reduction of 90% in 2 hours against feline **coronavirus,** strain Munich.

TOUCH coating technology Efficacy Testing Against Feline Coronavirus Strain

Viruses are different from bacteria as they require living host cells in order to survive, whereas bacteria and mould can thrive independently. As a result of this difference, viruses are much more difficult to test against, especially for solid surface testing. Specialist equipment is needed, and the methods utilise living cells in order to test the viruses. It is only recently that a standardised testing method for antiviral properties of solid surfaces has been published (2019 release).

Previously, our biochemists had obtained testing data against the influenza A H1N1 virus as a result of a project performed in collaboration with a local University. In order to confirm further viral efficacy of TOUCH coating technology, our biochemists recently commissioned antiviral testing through a third-party laboratory using a treated product against a strain of the coronavirus family. In our particular case, we tested feline coronavirus, strain Munich.

What Do the Results Mean for The Performance Of TOUCH Antimicrobial Technology?

After testing to the BS ISO 21702:2019 standard, the polypropylene containing TOUCH coating technology was proven effective against feline coronavirus, strain Munich, with a reduction of 90% in 2 hours.

This should not be used for claims against the novel virus SARS-CoV-2 (COVID-19), but it does demonstrate the antiviral efficacy of Touch coating technology against a member of the **coronavirus** family, the feline coronavirus, strain Munich
To confirm with certainty whether the virulence properties of SARS-CoV-2 (COVID-19) are affected by TOUCH coating technology, the testing will need to be repeated on the actual SARS-CoV-2 (COVID-19) strain. The Centres for Disease Control and Prevention (CDC) have categorised the virus at biohazard level 3 and above, meaning the SARS-CoV-**2 (COVID-19) virus will not be available for public commercial testing at this point in the pandemic.**

Further Protection for TOUCH Treated Products

For 25 years, the technology in TOUCH coatings has been empirically proven to work against bacteria, mould, fungi, and the influenza A H1N1 virus, for the expected lifetime of treated products.

With the recent successful independent viral testing, we can now prove that products treated with **TOUCH coating technology are also effective against a virus from the coronavirus family**: the feline coronavirus, strain Munich. The viral efficacy testing further demonstrates for our customers, that the antimicrobials used in TOUCH coatings portfolio delivers ultimate protection from a wide range of microbes including two virus strains. However antiviral testing data against feline coronavirus, strain Munich, should not be used as data for or proof of efficacy against SARS-CoV-2 (COVID-19

3 MSDS Touch Coatings

Material safety data sheet

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Material safety Data Sheet

Page: 1 **Date: 29/6/2018**

Touch Antimicrobial Coating (EPC)

1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Company identification:

Bromoco International Ltd
Unit 3/4 Argyle way
Stevenage
Herts
United Kingdom
SG1 2AD

Product code: **Touch A**
Trade name: **Touch Antimicrobial (EPC)**
Use: **Commercial application**

2 COMPOSITION / INFORMATION ON INGREDIENTS

This product is considered to be hazardous and contains hazardous components.
Substance name Value(s) CAS no EC no EC index Classification
2-Butoxethyl Acetate CAS Number 112-07-2
TVL=TWA 25PPM

3 HAZARDS IDENTIFICATION

Main hazards: **Skin irritation, Respiratory irritation, dizziness, Nausea, loss of consciousness**

4 FIRST AID MEASURES

- Inhalation: **Remove victim to fresh air. If you feel unwell, seek medical advice.**
- Skin contact: **Wash skin thoroughly with mild soap and water. Seek medical attention if ill effect or irritation develops.**
- Eye contact: **In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.**
- Ingestion: **DO NOT INDUCE VOMITING. If swallowed, rinse mouth with water (only if the person is conscious). Give water to drink. Seek medical attention if ill effect develops.**

5 FIRE-FIGHTING MEASURES

Flammable class: **Flammable.**
Extinguishing media: **Alcohol foam, dry chemical powder, carbon dioxide.**
Surrounding fires: **Use water spray or fog for cooling exposed containers.**
Special exposure hazards: **Keep away from heat, flames and sparks. Keep containers closed. Cool exposed containers with water. Use water to knock down vapour.**

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: **Extinguish any naked flames or source of ignition.**
Environmental precautions: **Prevent contamination of ground water and drains. Inform a local authority if this occurs.**
After spillage and/or leakage: **Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers. Flush with plenty of water.**

7 HANDLING AND STORAGE

Storage: **Store in dry, cool, well-ventilated area. Keep container closed when not in use.**
Handling: **Avoid contact with skin and eyes. Wear recommended personal protective equipment.**

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory protection: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.
- Hand protection: Use neoprene, nitrile or chemical resistant gloves.
- Skin protection: If skin contact or contamination of clothing is likely, protective clothing should be worn.
- Eye protection: Chemical goggles or face shield with safety glasses.
- Ingestion: When using, do not eat, drink or smoke.

1

Material safety Data Sheet

Page: 2 **Date: 29/6/2018**

Touch Antimicrobial Coating (Thin)

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state: **Viscous liquid.**
Colour: **Colourless, clear.**
pH value: **7**
Viscosity: **22sec. Zahn #2**

10 STABILITY AND REACTIVITY

Hazardous decomposition products: **Carbon oxides formed when burned**
Conditions to avoid: **High temperatures & ignition sources**
Materials to avoid: **Strong oxidizing agents, alkalines, aqueous acids, amines & acidic alcohols**

11 TOXICOLOGICAL INFORMATION

- Inhalation : **May cause irritation to the respiratory tract and to other mucous membranes.**
- Dermal : **Repeated or prolonged skin contact may cause irritation.**
- Ocular : **Risk of serious damage to eyes.**
- Ingestion : **May cause irritation of the linings of the mouth, throat, and gastrointestinal tract.**

12 ECOLOGICAL INFORMATION

On product :

13 DISPOSAL CONSIDERATIONS

Disposal: **Dispose in a safe manner in accordance with local/national regulations.**

14 TRANSPORT INFORMATION

General information: **Not classified.**

15 REGULATORY INFORMATION

European/International Regulations
European Labelling in Accordance with EC Directives
Hazard Symbols: XN

Irritant
Risk Phrases:
R 20/21 Harmful by inhalation and in contact with skin.
Safety Phrases:
S 24 Avoid contact with skin.
WGK (Water Danger/Protection)
CAS# 112-07-2: 1
Canada
CAS# 112-07-2 is listed on Canada's DSL List.
CAS# 112-07-2 is not listed on Canada's Ingredient Disclosure List.
US FEDERAL
TSCA
CAS# 112-07-2 is listed on the TSCA inventory.

16 OTHER INFORMATION

Further information: **Specifications and technical information on the product may be obtained by your dealer.**
The contents and format of this MSDS are in accordance with EEC Commission Directive 93/112/EEC.
DISCLAIMER OF LIABILITY **The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.**

End of documet

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4 Coating Performance

Touch antimicrobial coatings test data

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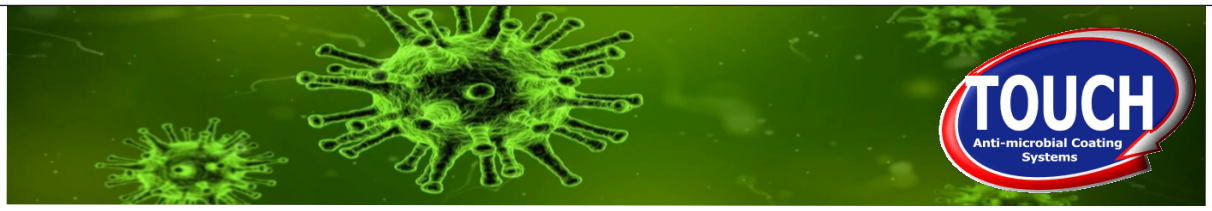

Touch Antimicrobial Coatings Test data

Cured Film Test results
Property ASTM method specification

Test	Type	Method	Units	Result	Rating
Impact Resistance		D2794	1/2"	Mandrel bend test	
	Flexibility		Passed	Direct & Reverse	Passed
	Impact		80 lb	No peeling, No lifting	Passed
	Film Pencil test	D3363-05	Gouge	7H	7H
			Cut	8H	8H
Salt Fog Test		B117	1000 hrs		
			Aluminium <1% white rust		Rated 10
			Stainless Steel, No effect		Rated 10
Humidity Resistance		D1794	1000 hrs @ 38°C		Rated 10
Weather Exposure		D552	100 hrs cyclic	No checking	Passed
			at 120 min light	No crazing	Passed
			18 min diminished	No adhesion loss	Passed
Chemical Resistance		D1308	Procedure 5.2	15 minute spot test	
				with 10% muriatic	Passed
				Discolouration	No effect
				Blistering	No effect
				Acid with 10% sodium	
				Hydroxide	Passed
			24 hour immersion		Passed
				2% soap solution	Passed
				3 types	Passed
			24 hour recovery period	Adhesion	No effect
				Gloss	No effect
Temperature Resistance			Heat to Gas Off	660° F / 349° C	

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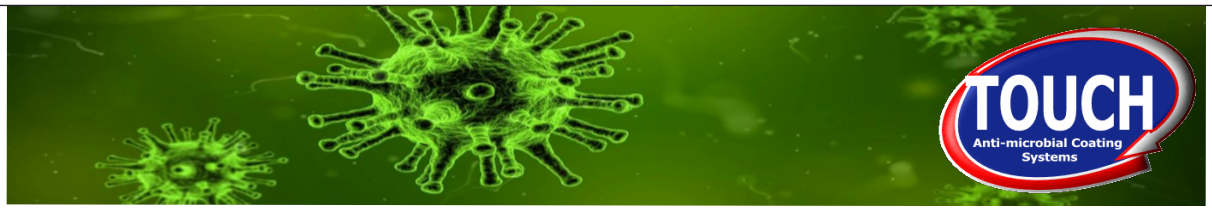
4 The Arches, Furmston Court, Icknield Way
Letchworth Garden City, Herts SG6 1UJ
Company Registration Number 09399815
VAT/EORI GB246544104000



Physical Properties of RESIN

Physical Properties RESIN	
Pot Life	Indefinite in closed container
Coverage	32 m2 per litre
Film thickness 1 coat	3-5 micron
Temperature range	minus 71C to 18C
Surface Temperature	10°C to 38°C
Ambient Temperature	4°C to 41°C
Relative Humidity	Not to exceed 85% relative humidity

Do not apply if temperature is less than 5% above dew rate

Properties Method Units Specification

Properties	Method	Units	Result
Appearance	D4176		Clear and Free From Impurities
Colour	D156	Saybolt	Clear
Colour	D1209	PT-Co	Clear
Density @ 20OC	D1298	lb./gal	7.7
Boiling Point	D86	/	182°C
Dielectric	D877	kV	38.1
Vapour Pressure	1	mm Hg	5mm Hg @ 40° C
Viscosity	D2161	cSt	N/A
Aniline Point	D611	/	< -3°C
Flash Point	D56	Tag closed cup	64°C
Kauri Butanol	D1133	/	60

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5 Bacterial Test Method

Antibacterial activity test methods

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Antibacterial Activity Test MEthods

JIS Z 2801 vs ISO

Definitions

SIAA

SIAA - Society of Industrial Technology for Antimicrobial Article

This organization was established by antibacterial agent manufacturers, antibacterial product manufacturers and antibacterial trial and evaluation institutions with the aim of diffusing suitable and safe antibacterial products.

KOHKIN = Antibacterial (in Japanese)

JIS Z 2801

JIS - Japanese Industrial Standard

JIS Z2801 method is a quantitative test method for determining the antimicrobial efficacy and activity of hard surfaces of plastics, metals, glass, ceramic, rubber, silicone and other non absorbent materials.

The test has been used for other plain hard surfaces like glass, paint/lacquers/coating, polymeric materials etc.

ISO 22196

ISO - International Organization for Standardization

ISO 22196:2011 is an internationally recognized test method for evaluating the antibacterial activity of antibacterial-treated plastics, and other non-porous, surfaces of products (including intermediate products).

The test is also applicable to products such as electrical appliances, personal items, household goods, nursing-care articles, pet accessories and aircraft-interior fittings.

Timeline

2000 — JIS Z 2801:2000
JIS Z 2801 test method was developed by a consortium of workers comprised of manufacturers of silver-based antimicrobial agents, government -based research organisations and universities, under the supervision of the SIAA.

2006 — JIS Z 2801:2006
JIS Z 2801 test method was revised

2007 — ISO 22196:2007
JIS Z 2801 test method is **GLOBALISED** as ISO 22196.

ISO 22196 is modeled after JIS Z 2801 and the two methods are essentially the same.

2010 — JIS Z 2801:2010
JIS Z 2801 test method was revised

2011 — ISO 22196:2011
ISO 22196 is revised and extended to include not only plastics but also surfaces made of other non-porous materials, thus making the second edition applicable to products such as electrical appliances, personal items, household goods, nursing-care articles, pet accessories and aircraft-interior fittings.

2012 — JIS Z 2801:2012
JIS Z 2801 test method was revised

Method

ISO 22196 is modeled after JIS Z 2801 and the two methods are essentially the same.

Antibacterial activity is measured by quantifying the survival of bacterial cells which have been held in intimate contact for 24 hours at 35°C - 37°C with a surface that contains an antibacterial agent.

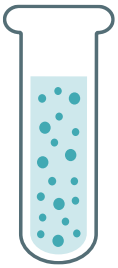
The antibacterial effect is measured by comparing the survival of bacteria on a treated material with that achieved on an untreated material.

Common Factors (JIS Z2801 and ISO 22196)

Temperature	35°C - 37°C
Incubation time (on surface)	24 hours
Incubation time (of washed bacteria on plates)	In standard - 40 to 48 hours
Sample size	5x5cm
Sample number	6 (3 per organism, 6 more for controls for immediate recovery)
Media and Agar	PCA, Nutrient broth, Nutrient Agar, PBS etc.
Organisms	*E.coli, S.aureus*
Pre-culture methods of bacteria	Inoculate media, grow overnight, dilute as appropriate
Numbers loaded	Range in standard, $6x10^5$ ideal number of organisms
Calculation methods	As per standard

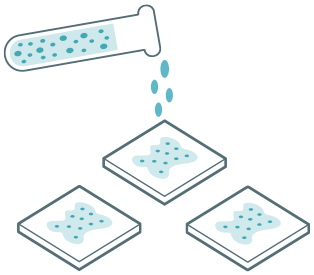
Method in detail

STEP



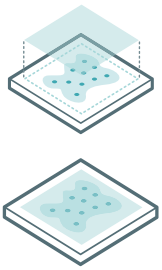
Prepare cell suspension (ca 10^5 cells ml^{-1})

STEP 2



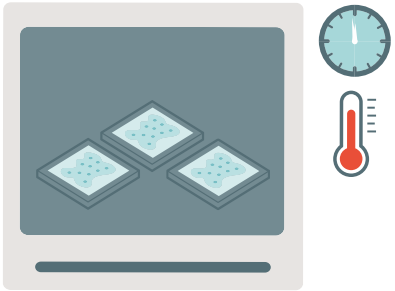
Inoculate 3 test pieces (50 x 50 mm) with 400 µl of cell suspension each

STEP



Cover with sterile polyethylene film (40 x 40 mm)

STEP 4

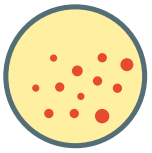


Incubate for 24 hours at 35°C - 37°C under humid conditions

STEP 5

Transfer each film and test piece to neutraliser in stomacher bag

STEP



Determine CFUs (as % or log reductions)

6 Viral Test Results

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TOUCH coating technology to reduce feline Coronavirus Strain

As a result of the current pandemic, we are increasingly being asked by customers about whether TOUCH coating technology is effective against coronavirus.

As with previous testing, it is our duty of care to inform our customers what our technology can and cannot achieve, and as always this is based on proven data. Recently, our biochemists have worked closely with an independent laboratory to test our technology against a strain of feline **coronavirus** in order to provide our customers with continued confidence in the efficacy of our technology. As a result of this testing, Touch coating technology was proven effective with a reduction of 90% in 2 hours against feline **coronavirus,** strain Munich.

TOUCH coating technology Efficacy Testing Against Feline Coronavirus Strain

Viruses are different from bacteria as they require living host cells in order to survive, whereas bacteria and mould can thrive independently. As a result of this difference, viruses are much more difficult to test against, especially for solid surface testing. Specialist equipment is needed, and the methods utilise living cells in order to test the viruses. It is only recently that a standardised testing method for antiviral properties of solid surfaces has been published (2019 release).

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What Do the Results Mean for The Performance Of TOUCH Antimicrobial Technology?

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For 25 years, the technology in TOUCH coatings has been empirically proven to work against bacteria, mould, fungi, and the influenza A H1N1 virus, for the expected lifetime of treated products.

With the recent successful independent viral testing, we can now prove that products treated with **TOUCH coating technology are also effective against a virus from the coronavirus family**: the feline coronavirus, strain Munich. The viral efficacy testing further demonstrates for our customers, that the antimicrobials used in TOUCH coatings portfolio delivers ultimate protection from a wide range of microbes including two virus strains. However antiviral testing data against feline coronavirus, strain Munich, should not be used as data for or proof of efficacy against SARS-CoV-2 (COVID-19

Our advice for businesses concerned about COVID-19 is to encourage and support regular cleaning regimes and a strong focus on hand hygiene. It is advisable to carry tissues to catch any coughs or sneezes and throw the tissues away once used. Prioritise washing hands thoroughly with soap and water but use hand sanitisers if you have no access to hand washing facilities.
Please always follow guidance given by relevant health authorities such as the NHS or WHO.

Kindest regards

Tony Semple

Tony Semple

Technical Director

7 Aftercare Instructions

Protection with Touch antimicrobial coatings

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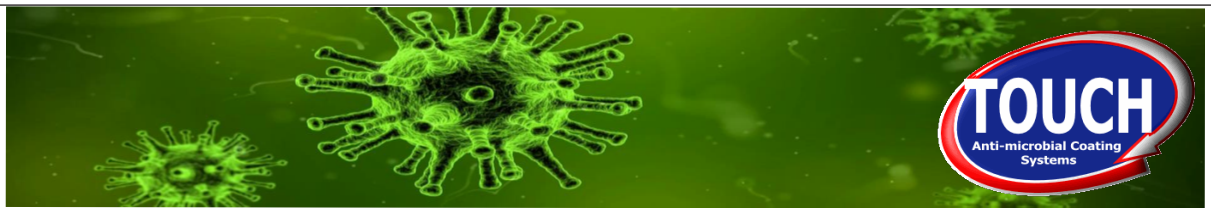

Aftercare Instructions surfaces protected with Touch Antimicrobial Coatings

Surfaces protected with **Touch Antimicrobial** can now be maintained easily and kept up indefinitely.
Touch Antimicrobial will protect the surfaces from bacterial growth, bleaches, acids, bird droppings and other corrosives.
When washed the surface should be dried with a soft cloth.
Dirt and dust may settle on the protected surface but will not penetrate the clear finish and can easily be removed.
The protected surface will repel water and should bead up when wet.
Do not rinse off in the direct sun, especially if you have hard water, or you may get water spots.
If some tougher dirt or bird "deposits" get on the surface, you may need to use a soft brush with water.
Power-washing should never be necessary

Touch Antimicrobial coatings will expand and contract with the metal,
Touch Antimicrobial coatings will provide extreme protection against corrosion, oxidation, tarnish, rust, acid rain, chalking and much more. However, the surface should be protected from harsh solvents and abrasives.

To safely clean a surface protected with **Touch Antimicrobial** use **TOUCH Aftercare Cleaner**

Do Not used cleaners that contain any solvents or petroleum distillates.

WHAT TO AVOID:
There are cleaners which contain solvents or petroleum distillates that should not be used on the protected surface. Watch out for "orange" cleaners that usually contain delimonene which is a solvent.
You will also want to avoid abrasion
Do Not use any abrasive cleaners or cloths
There is no reason to scrub the coated surface with scratchy cleansers like scratch pads.
If the coating does get scratched, it can easily be touched up.

.

If you have any further questions, please contact us, we will be happy to help.

Call us on: 0800 6349711
Email us: sales@bromocointernational.com

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