

# Intertherm 715

Modified Silicone

WORLD WIDE PRODUCT RANGE

## Product Description

A single pack, temperature indicating paint based upon a modified silicone.

The colour changes from green to blue at temperatures between 180-220°C (356-428°F), and from blue to white at temperatures between 310-350°C (590-662°F).

## Intended Uses

A functional coating for identification of hot spots and internal insulation failures, exhibiting a visual colour change in response to temperature rise.

Typically used on reaction vessels on chemical and petrochemical sites as a one-time warning of dangerous temperature increases.

This product can be used in two coats as a self-priming system over stainless steel, or over an inorganic zinc primer for optimum corrosion protection to carbon steel substrates.

Suitable for application both in the fabrication yard and on-site.

## Practical Information for Intertherm 715

<b>Colour</b>	Green (at ambient temperature)
<b>Gloss Level</b>	Eggshell
<b>Volume Solids</b>	42%
<b>Typical Thickness</b>	25 microns (1 mil) dry equivalent to 60 microns (2.4 mils) wet
<b>Theoretical Coverage</b>	16.8 m <sup>2</sup> /litre at 25 microns d.f.t and stated volume solids 674 sq.ft/US gallon at 1 mil d.f.t and stated volume solids
<b>Practical Coverage</b>	Allow appropriate loss factors
<b>Method of Application</b>	Air spray, Brush, Roller

## Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with Intertherm 715	
			<i>Minimum</i>	<i>Maximum</i>
5°C (41°F)	60 minutes	3 hours	3 hours	Extended*
15°C (59°F)	40 minutes	2 hours	2 hours	Extended*
25°C (77°F)	30 minutes	90 minutes	90 minutes	Extended*
40°C (104°F)	15 minutes	45 minutes	45 minutes	Extended*

\*See International Protective Coatings Definitions & Abbreviations

## Regulatory Data

<b>Flash Point</b>	34°C (93°F)
<b>Product Weight</b>	1.2 kg/l ( 10.2 lb/gal)
<b>VOC</b>	547 g/l 4.60 lb/gal (550 g/l) USA - EPA Method 24
	UK - PG6/23(92), Appendix 3

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**Surface Preparation**

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:1992.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

**Abrasive Blast Cleaning**

Abrasive blast clean to Sa2½ (ISO 8501-1:1988) or SSPC-SP6. If oxidation has occurred between blasting and application of Intertherm 715, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process, should be ground, filled, or treated in the appropriate manner.

**Shop Primed Surfaces**

Intertherm 715 is suitable for application to steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:1988) or SSPC-SP6.

**Application**

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Working Pot Life	Not applicable		
Airless Spray	Not recommended		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment.	
Brush	Suitable - Small areas only.	Typically 25 microns (1 mil)	
Roller	Suitable - Small areas only.	Typically 25 microns (1 mil)	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation.	
Cleaner	International GTA713		
Work Stoppages	Thoroughly flush all equipment with International GTA713. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.  All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

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## Product Characteristics

This product is designed to provide a visual indication of hot spots, or breakdown of integrity of internal refractory insulation over a broad temperature range. If accurate thermal data is required it is recommended that thermocouples or other instrumentation should be employed.

Gradual changes in colour will normally occur as the surface temperature of the substrate increases in the following ranges:

180-220°C (356-428°F) Green to Blue

310-350°C (590-662°F) Blue to White

Normal continuous surface temperature of 100°C and above will cause the original colour to gradually change over a period of time. The higher above 100°C, the faster the change. The coating will also show some colour drift upon prolonged exposure to operating temperatures approaching their change point.

Maximum continuous dry temperature resistance for Intertherm 715 is 350°C (662°F).

**Intertherm 715 is a one time warning system. The colour change is permanent. After warning of a temperature change the coating must be reapplied after proper surface preparation has been performed.**

Typical service life of this coating is 16 to 24 months before recoating is necessary.

When using Intertherm 715 over inorganic zinc primer, the products should be applied in strict accordance with film thickness specifications, since application of excessive thicknesses may cause blistering. Determine that the inorganic zinc primer is thoroughly cured prior to application of the Intertherm 715 by following the curing instructions given on the relevant product data sheet.

When zinc silicate primers have been allowed to weather, all zinc salts must be removed by water washing/bristle brushing prior to the application of Intertherm 715.

Intertherm 715 may be applied to warm surfaces between 40-80°C (104-176°F) by thinning with one part of International GTA713 to one part Intertherm 715, then applying multi-coats in thin wet films to achieve the specified dry film thickness.

## Systems Compatibility

Intertherm 715 can be applied directly to abrasive blast cleaned surfaces. However, when improved anti-corrosive performance is required the following primers are recommended:

Interzinc 12

Interzinc 22

Intertherm 715 is not normally topcoated with products other than itself.

For other suitable primers, consult International Protective Coatings.

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## Additional Information

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following sections of the International Protective Coatings data manual:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

## Safety Precautions

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

<b>Pack Size</b>	5 litre unit	Intertherm 715	5 litres in a 5 litre container
	For availability of other pack sizes contact International Protective Coatings		
<b>Shipping Weight</b>	U.N. Shipping No. 1263		
	5 litre unit	6.6 kg	(14.6 lb)
<b>Storage</b>	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

## Disclaimer

*The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Any warranty, if given, or specific Terms & Conditions of Sale are contained in International's Terms & Conditions of Sale, a copy of which can be obtained on request. Whilst we endeavour to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising from the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.*

*It is the user's responsibility to check that this sheet is current prior to using the product. Issue date: 1st June 1997*

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## International Protective Coatings

### Worldwide Availability

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