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# KING-GUARD FLEX® 6080

## Spray Elastomeric Polyurea



### Wear Resistant Elastomer Coating - High Abrasion

**KING-GUARD FLEX® 6080**

**A 100% solids, fast-set, two component high performance spray polyurea elastomer coating.**

## Product Description

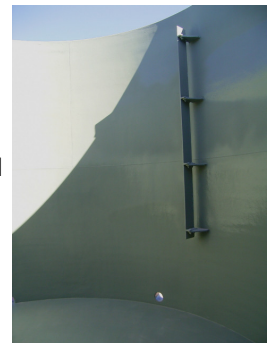
**KING-GUARD FLEX® 6080** is an ultra rapid curing spray applied polyurea elastomer coating and lining system, offering a high degree of mechanical friction wear protection for metal and concrete surfaces in aggressive processing environments. Typical application thickness is 4-8mm.

**KING-GUARD FLEX® 6080** is a premium performance elastomeric coating for the preservation and repair of surfaces which may have been damaged or degraded by chemical attack, time or mechanical wear. It offers improved resistance to fine particle wet abrasion, low concentrations of acids, alkalis, seawater, sunlight and high temperatures.

**KING-GUARD FLEX® 6080** is a 100% solids, two-component, 1:1 ratio material with elongation properties exceeding 400% and tensile strengths exceeding 14 MPa.

**KING-GUARD FLEX® 6080** is applied using a plural component heated spray system with an effective pot life of 10 seconds. This product can be applied in temperatures ranging from -10°C to 50°C and can be utilized within 60 minutes (light duty).

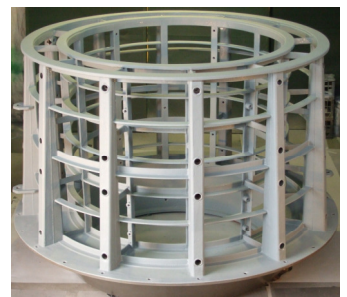
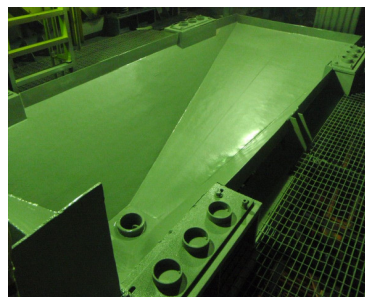
**KING-GUARD FLEX® 6080** meets AS 4020:2005 Criteria - for use in potable water structures. *Maximum crack-bridging.*



## Advantages

Advantages of sprayed King-Guard Flex® 6080 coating include:

- Extremely fast cure - Unlimited build thickness 4 - 20mm
- High abrasion resistance - 90 Shore A elastomer
- Elastomeric - stress / impact resistant
- Good chemical and thermal resistance
- No VOC's and minimal odour
- Reduced maintenance down-times



## Recommended Uses

**King-Guard Flex® 6080** is recommended as a durable, high performance protective lining system in a wide range of mineral processing industries. Some suitable applications may include:

- Abrasive slurry tank & launder linings
- Hopper linings - sands
- Trommel grizzly & scrubber frames
- Railcar (ore) linings
- Vibrating screens & sumps
- Conveyor transfer chutes
- Fine ore bins - steel linings
- Baffles & agitator shafts
- Sand filter linings
- Classifier screw coatings
- Wide section - expansion joint sealing
- Durable crack bridging concrete repair lining - water storage tanks

## Chemical Resistance (Guide Only)

Hydrochloric Acid 10%:	Resistant	Sodium Hydroxide 40%:	Resistant
Sulphuric Acid 10%:	Resistant	Diesel Fuel:	Resistant
Sulphuric Acid 20%:	Splash & Spills	Heavy Duty Detergent:	Resistant
Nitric Acid 1%:	Resistant	Sodium Chloride, 10% solution @ 50°C:	Resistant

Consult Asset Systems with any specific chemical exposure requirements.

## Physical Properties

Gel Time	10 - 12 seconds
Tack Free Time	30 - 60 seconds
Light duty foot traffic	< 1 hour
85% Cure @ 25°C	Approx. 12 hours
Tensile Strength, [N/mm <sup>2</sup> ] ASTM D-638	≥ 14
Tensile Elongation, %	385 - 475
Shore Hardness, A	90 ± 5
Density [g/cm <sup>3</sup> ]	1.04 ± 0.02
Thermal Resistance (dry)	minus 40 – 130°C
Abrasion Resistance [mm <sup>3</sup> ] , DIN 53516	140 ± 30%
Peel Strength (steel) [N/mm] DIN 53531	≥ 10
Water Vapour Permeability, ASTM E 96, 4mm	12 -14g/m <sup>2</sup> */day
Water Vapour Permeation, ASTM E96, [ng/cm <sup>2</sup> *h *Torr]	0.05 – 0.09*

\* The values are determined for material thickness of 4mm at a temperature of 38°C

## Surface Preparation

### Carbon Steel

Steel substrate surfaces to be abrasive blasted to AS 1627.4 Class 2.5 - 3 and adequately profiled (consult Asset Systems). Avoid flash rusting prior to priming.

Soluble salts must be removed to an acceptable level for the coating/lining application.

### Concrete

Concrete/ masonry surfaces to be high pressure water or sweep abrasive blasted to remove all traces of dirt, laitance and other contamination. Prime/fill imperfections in the substrate surface to limit out-gassing.

Remove all existing coatings by most efficient method available. Only well bonded, profiled, compatible coatings may remain.

Vacuum to remove loose dust etc, prior to application of primers.

### Primers

An adhesion promoting primer system is required for both metal and concrete substrates. Consult Asset Systems for advice.

## Application

The King Guard Flex® 6080 is applied using specialist 1:1 plural component, heated, high pressure spray equipment.

## Cure Time

Applications in cold temperatures will require longer cure times. For rapid return to service applications, consult Asset Systems for advice.

	10 - 21°C	21 - 32°C	32 - 43°C
<b>Tack Free</b>	<60 sec	<60 sec	<60 sec
<b>Hard Film</b>	<2 min	<2 min	<2 min
<b>Recoat (max)</b>	5 hr	5 hr	5 hr
<b>Light Foot Traffic</b>	15 min	15 min	10 min
<b>Water Immersion</b>	30 min	30 min	30 min
<b>Full cure</b>	5 days	4 days	3 days

Consult Asset Systems for specific over-coating instructions. Surfaces may require additional preparation/priming.

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