

## Technical Data Sheet

### JAZEERA ROYAL GRAND

#### JA-15016

#### Description:

A high quality water borne, 100% pure acrylic elastomeric and anti-carbonation topcoat paint, characterized by crack-bridging ability and resistance to alkali, moisture and salts. Also excellent flame spread resistant, allows water vapour to pass from the substrate through the paint film and has water repellent property. Also it is a good reflector of light in the dark.

#### Recommended Use:

It can be used as a protective and decorative topcoat for exterior and interior applications on concrete, cement and other masonry substrates for palaces, houses, car parks, bridges, tunnels and coastal areas buildings. Also it can be applied in wet areas like kitchens and bathrooms.

#### Characteristics:

- Excellent UV resistance.
- Excellent anti-carbonation property (Carbon Dioxide).
- Long-lasting corrosion protection to reinforced steel in concrete.
- Prevents cracks of concrete in buildings and bridges.
- Excellent flame spread resistant
- Excellent dirt pick-up resistance.
- Elastomeric, excellent crack-bridging.
- Water vapour permeable.
- Excellent resistance to moisture and salts.
- Excellent resistance to mildew and fungi.
- High light reflectivity in dark places.
- Excellent adhesion and high durability.
- Good resistance to scratch and water.
- Breathable, allows the surface to breathe (moisture).
- Ultra low VOC.

#### Physical Constants:

• Finish:	Eggshell	
• Color:	White and other colors as per Jazeera catalog.	
• Volume Solid:	53 %,	ASTM D2697
• Viscosity:	90 KU @ 25°C	ASTM D562
• Specific Gravity:	1.40	ASTM D1475
• D.F.T:	50-100 µm each coat.	
• Theoretically Spreading Rate :	5.3 - 10.6 m <sup>2</sup> / L.	
• Freeze-Thaw Stability:	Pass, 3 cycles,	ASTM D2243
• Heat Stability:	Pass, 49 days, at 50°C	

#### Tests:

• VOC	< 1 g/L	ASTM D2369	METS Laboratory-U.A.E.
• VOC Emission After Application:	Pass / LEED Requirements - Ver.4		METS Laboratory-U.A.E.
• Abrasion resistance:	Pass	ASTM D4060:2019	METS Laboratory-U.A.E.
• UV Resistance	Pass 2500 hrs	BS EN 1062-11:2002	METS Laboratory-U.A.E.
• Flame Spread Resistance:	Class 1	ASTM E84	Element
• Carbon Dioxide Permeability Test: (BS EN 1062-6:10-2002 Method A)			METS Laboratory-U.A.E.
-Specimen Thickness:	200µm.		
-Average Carbon dioxide permeability:	0.81 g/m <sup>2</sup> .d.		
-Diffusion equivalent air thickness in meter (SD):	306m.		
-Diffusion equivalent of concrete in meter (SC):	0.77m.		
-Diffusion resistance number (µ):	1530864.		
-Carbon dioxide diffusion coefficient of the coating:	9.8×10 <sup>-8</sup> cm <sup>2</sup> /s.		
• Water - Vapour diffusion coefficient of the coating @21.5°C: 2.58×10 <sup>-2</sup> cm <sup>2</sup> /s.			Dortmund University of Technology.
• Water Absorption Coefficient / 0.08 Kg / m <sup>2</sup> h <sup>0.5</sup> / DIN EN 1062 - 3			
• Water - Vapour Transmission Rate (perms) / 1.67 @DFT 200 µm. /ASTM D1653-13			METS Laboratory-U.A.E.

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• Light Reflectivity (LRV) / 98.5% / BS 8493:2008 / METS Laboratory-U.A.E.			
• Tensile Properties: Elongation at Break : 191 % / ASTM D412 Tensile strength: 6.53 MPa / ASTM 638-22 / METS Laboratory-U.A.E.			
• Crack - Bridging Method A /A5 / Tested by Dortmund University of Technology. DIN EN 1062 - 7 - (23°C & V = 0.5 mm / min.) DFT = 463 µm. Crack - Bridging up to 0.7 mm @ DFT = 100 µm. Crack - Bridging up to 2.0 mm @ DFT = 200 µm. Crack - Bridging up to 3.3 mm @ DFT = 300 µm. Crack - Bridging up to 4.5 mm @ DFT = 400 µm. Crack - Bridging up to 5.6 mm @ DFT = 463 µm.			
• Crack - Bridging Method B /B4.1 / DIN EN 1062 - 7 / Tested by Dortmund University of Technology. (23°C & No. of cycles = 1000 cycles & Maximum crack width = 0.5 mm) DFT = 365 µm.			
• Chloride Ion diffusion ( cm <sup>2</sup> /s) : 3.9 X 10 <sup>-10</sup> / ASTM C1556 - 11a (2016) / METS Laboratory-U.A.E.			
• Dirt Collection Index:	Before washing 95%	ASTM D3719-00	/ METS Laboratory-U.A.E.
	After washing 97%		
• Wet Scrub Resistance:	pass 20000 cycles	DIN 53778-2:1983	/ Wimpey Laboratory-U.A.E.
• Water - Vapour Transmission Rate (Permeability ) / ISO 7783:2018			/ Wimpey Laboratory-U.A.E.
Transmission Rate : 75.64 g/m <sup>2</sup> .day. µ - value H <sub>2</sub> O (diffusion coefficient) = 869.49. Sd (equivalent air thickness) = 0.270m @DFT 311 µm. Class as per EN 1062-1:2004 : V2 (Medium)			
• Corrosion Resistance:	Pass ASTM B117-19		/ Wimpey Laboratory-U.A.E.
• Depth of Penetration of Water Under Pressure:	Pass BSEN 12390-8:2019		/ Wimpey Laboratory-U.A.E.

#### Surface Preparation:

- All new surfaces shall be cured at least 28 days prior to application of the primer.
- Remove old paints completely from previously painted surfaces.
- The substrate should have sufficient strength and free from unsounded areas, pug holes, protrusions and pops.
- Make sure that the surface is clean, dry, free from dust, oil, grease, salt and mold.
- Fill the holes and cracks with suitable fillers such as "Jazeera Ultimate", "Jazeera Unique Filler" or "Jazeera Epoxy Crack Filler 400" prior to application of the primer (Refer to TSD).

#### Application Guide :

- The required temperature during application, must not be less than 5°C; the surface moisture should not exceed 8% and the relative humidity at work place should not exceed 70%.
- pH of surface should not exceed 9.
- Paint should be stirred carefully before use.
- A suitable quantity of "Tap water" can be added to get reasonable viscosity for application.
- Do not apply on wet and moistened surfaces until completely dry.
- Do not apply the next coat unless the previous one is fully dry. Minimum recoating interval time should be followed.
- Adequate ventilation should be provided during application.

#### Application Tools :

- Airless spray: / Thor / Nozzle orifice: 0.021- 0.023  
Nozzle pressure : 20 MPa ( 2900psi)  
Spray angle : 40° - 60°
  - Air spray: Recommended Nozzle size: (1.5 – 1.8) mm.  
Nozzle pressure: 2-3 Bar( 2900psi)
  - Roller: Recommended type: Soft and smooth woolen roller.
  - Brush: General / Normal type.
- Depends on the weather condition at work place.

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**Thinner:** Tap water

**Thinning Ratio:**

(0 - 15) by volume for airless spray applications.

(15 - 25) by volume for air spray applications.

(10 - 15) by volume for roller & brush applications.

**Painting System:**

For Smooth Surfaces :

- Apply one coat of "Jazeera Silane Primer".
- Apply two coats (or more) of "Jazeera Royal Grand".

For Rough Surfaces :

- Apply two coats (or more) of "Jazeera Royal Grand".
- Application by roller gives slight texture surfaces.
- Application by spray gives smooth surfaces.

**Drying Time:**

Surface dry: 30 min.

Hard dry: 4 hours.

Dry to recoat: 4 hours (minimum)

Full cure: 7 days.

All above results according to ASTM D5895@ 25°C.

**Cleaning Tools:** Tap water

**Packing :**

US Gallon.

Drum 18 L.

Gallon: Base 3 (Tintable base by tinting machine).

Drum: Base 16.2 (Tintable base by tinting machine).

**Shelf Life & Storage:**

Shelf life : 24 months @ 25 °C.

Storage: The container should be kept in sealed, dry, cool, well - ventilated place and stored in accordance with national regulations.

**Safety Precautions:**

Please read and follow the precautionary notices displayed on the container, and all caution statements on the MSDS of this product.

- Handle with care before and during use.
- During application of paint, contact of liquid paint with eyes, skin, inhalation of paint mist and paint vapour, should be strongly avoided.
- Recommended to use the product in well-ventilated area when applying the paint in insufficient ventilated areas, forced ventilation should be provided.
- Keep away from the reach of children.

For environmental safety: please donate the leftover paint and packaging to your local authorized institution for usage or recycling purpose.

Note: Wastes and empty containers should be disposed of in accordance with local regulations made under the Control of Pollution Act and the Environmental Protection Act.

**Disclaimer:**

To the best of our knowledge the technical data listed herein is true and accurate up to publication date and is subject to change without prior notice. User must contact Jazeera Paints Company to verify of any modifications before specifying or ordering the product. Thus, information given in this sheet is not intended to be exhaustive and any person using the product other than the recommendations in this sheet or without reverting to our Jazeera TSD, he should take his accountability in this connection.

As we are not capable to control the quality and the substrate's conditions as well as the factors that affect on using, or applying the product, so we never give any written or implied guarantee in these documents, but we guarantee our products to conform to Jazeera quality while we assume no responsibility for coverage, performance or injuries resulting from application. Liability "if any" is limited to replace the products mentioned above.