DURAVEX Paints

TECHNICAL DATA SHEET (TDS)



Duravex MaxSeal is a premium, water-based pure acrylic elastomeric waterproof coating engineered for long-term performance with exceptional waterproofing capability. It forms a seamless, ultra-flexible membrane with outstanding adhesion, stretchability, and resistance to UV exposure and harsh environmental conditions. Designed to accommodate structural movement and thermal expansion, MaxSeal delivers durable, reliable protection while curing to a smooth, medium-sheen finish. Suitable for use with or without reinforcement membranes.

MAXSEAL

KEY PROPERTIES

- Expertly formulated elastomeric coating with exceptional waterproofing capability, forming a seamless and continuous protective membrane.
- Advanced water-based pure acrylic resin system for easy application, low odour, and water clean-up.
- Excellent resistance to UV exposure, extreme temperatures, moisture ingress, and harsh environmental conditions.
- High-performance system providing long-term flexibility and durability.
- Highly elastic and flexible film designed to accommodate substrate movement, thermal expansion, and contraction without cracking or loss of integrity.
- Tough yet flexible film with good resistance to abrasion, impact, and environmental stress.
- Forms a smooth, uniform medium-sheen finish that combines functional protection with a refined decorative appearance.
- Designed for use as a standalone system or in conjunction with reinforcement membranes, providing versatility across demanding waterproofing applications.

PRODUCT USES

- Waterproofing of horizontal and vertical building elements where a seamless, flexible protective membrane is required.
- Application to flat concrete roof slabs and flat roofs, provided adequate falls are present to prevent continuous ponding of water.
- Sealing of parapet walls, wall tops, cappings, flashings, joints, and detailing areas prone to water ingress.
- Application to concrete, cementitious, fibre-cement, masonry, and plastered substrates, provided surfaces are sound and correctly prepared.
- Waterproofing of metal substrates, including galvanised steel and coated metal surfaces, when primed in accordance with specification.
- Use on new, properly cured cementitious substrates with moisture levels within acceptable limits.
- Application to previously painted surfaces, including acrylic coatings, provided existing coatings are sound, well-adhered, and suitably prepared.
- Suitable for use with or without reinforcement membranes, depending on system design, detailing requirements, and exposure conditions.
- Suitable for interior and exterior waterproofing applications where long-term flexibility and durability are required.

TECHNICAL INFORMATION

Product Type:	Water-based pure acrylic resin system
Physical Form:	Smooth viscous coloured liquid
Finish:	Smooth Medium Sheen
Application Methods:	Brush, roller, or airless spray
Cleaning of Equipment:	Clean with water while the product is still wet
Thinning:	Product supplied ready for use. No dilution required.
Mixing:	Stir well with a flat paddle before use. Do not use paint stirrers, as this may aerate the product.
Typical Spread Rate:	± 3 m² per litre per coat (actual coverage depends on surface texture and porosity).
Drying and Cure Times: (At ±23-25 °C and ±50%-65 relative humidity)	Touch dry: ± 2-4 hours | Recoating time: ± 4 hours | Rain resistance: ± 6–8 hours after final coat | Full cure: 14 days. Drying and curing times are dependent on temperature, humidity, air movement, and substrate condition.
Viscosity:	± 110–120 Krebs Units (KU)
pH:	± 8.5 - 9.5
Specific Gravity / Relative Density:	± 1.20 kg per litre
Total Solids Content (TSC):	± 51%

Pigment Volume Concentration (PVC):	± 25%
Pigments and Fillers:	Pigments and fillers are selected for lightfastness and resistance to alkaline substrates.
Flash Point:	Non-flammable (water-based product)
Colour Range:	Range of standard colours
Packaging Sizes:	5L and 20L
Storage:	Store in a cool, dry area away from direct sunlight and frost. Ensure containers are sealed when not in use.

IMPORTANT NOTES / LIMITATIONS

- All substrates must be structurally sound, clean, dry, and free from dust, oil, grease, laitance, loose material, and any other contaminants prior to application of MaxSeal.
- The integrity and suitability of the surface must be assessed for each new project, and a test application is strongly recommended to confirm adhesion and compatibility prior to full-scale application.
- All cracks, gaps, voids, weak concrete, and surface defects must be repaired and reinstated using suitable repair materials before application. Large gaps must not be bridged without appropriate preparation and repair.
- Roof slopes must be sufficient to promote effective water run-off, with a recommended minimum slope of approximately 2–4°. Slopes must be uniform to prevent water accumulation and localised ponding.
- Local weather conditions, including ambient temperature, humidity, and the risk of rainfall, must be carefully considered during application and throughout the curing period. MaxSeal must not be applied under freezing conditions, during imminent rainfall, or where excessive surface moisture is present prior to full cure.
- Where rainfall occurs between coats, a minimum drying period of 48 hours at 23 °C must be allowed before applying subsequent coats. Any rain-damaged areas must be reinstated in accordance with the application specification before further application.
- MaxSeal must not be applied beneath or over tiled surfaces, including ceramic, slate, clay, or slurry tile systems, nor in areas subject to permanent, continuous, or long-term ponding water.
- MaxSeal is not suitable for application over bitumen-based coatings, asphalt, malthoid, or torch-on waterproofing membranes.
- All metal substrates, including mild steel and galvanised steel, must be clean, degreased, mechanically keyed where required, and primed with Duravex IronPrime Metal Etch Primer prior to the application of MaxSeal.
- Friable masonry, plastered surfaces, and raw brickwork must be primed with Duravex BondPro Bonding Liquid before application.
- MaxSeal is not a structural repair system and must not be used to bridge expansion joints, structural movement joints, or areas subject to excessive or ongoing substrate movement.
- The substrate must be free of rising, trapped, or concealed moisture. MaxSeal must not be applied where moisture vapour pressure or water ingress from below may occur.
- Drying and curing times are dependent on environmental conditions, and adequate curing must be allowed before the coated surface is exposed to traffic, water, or service conditions. Full curing of the MaxSeal system must be allowed for a minimum of 14 days, subject to prevailing environmental conditions.
- Whilst MaxSeal is formulated to provide long-term waterproofing performance, it is recommended that the applied system be inspected periodically and that a maintenance coat be applied approximately every 5 years, subject to exposure conditions, wear, and the service environment.
- The applicator remains responsible for ensuring substrate suitability, correct surface preparation, and compliance with this specification prior to application.

APPLICATION & SURFACE PREPARATION

1. GENERAL APPLICATION REQUIREMENTS

The performance, durability, and waterproofing effectiveness of Duravex MaxSeal are directly dependent on correct surface preparation, system selection, and strict adherence to the recommended application conditions. All substrates must be structurally sound, dry, clean, and free from contaminants that may impair adhesion or membrane integrity.

Application must **not** take place under the following conditions:

- Substrate moisture content exceeding 10–15%, depending on substrate type.
- Rainfall occurring or forecast during application or curing.
- Inadequate falls, poor drainage, or areas subject to standing or ponding water.
- Ambient or substrate temperatures outside the specified limits.
- Application onto frozen, frost-affected, or condensation-covered surfaces.

MaxSeal is a waterproofing membrane system and is not intended to serve as a trafficable wearing surface.

2. SUITABLE SUBSTRATES

MaxSeal is suitable for application to the following correctly prepared and primed substrates:

- Concrete and cementitious substrates.
- Flat concrete roof slabs and flat roofs, provided adequate falls are present to prevent ponding water.
- Fibre-cement sheeting and cement boards.
- Masonry and plastered surfaces.
- Galvanised steel and suitably primed metal substrates.

- Timber and timber-based boards, when correctly primed.
- Previously coated acrylic surfaces, provided existing coatings are sound and well adhered.

3. NEW OR UNCOATED CEMENTITIOUS SUBSTRATES

3.1 Substrate Curing

New concrete, screeds, and cementitious substrates must be allowed to cure for a minimum of 28 days prior to application to ensure adequate moisture release and reduction of surface alkalinity.

3.2 Surface Conditioning

Surfaces shall be free from laitance, dust, oils, grease, curing compounds, and loose material. Laitance shall be removed by mechanical abrasion, light grinding, or the use of a suitable proprietary cleaning or etching solution, followed by thorough rinsing with clean water. Surfaces must be allowed to dry completely for a minimum of 24 hours before further treatment.

3.3 Friable or Powdery Substrates

Substrates exhibiting friable, chalking, or powdery characteristics must be stabilised using a compatible water-based acrylic bonding liquid, such as Duravex BondPro Bonding Liquid. The bonding layer must be allowed to dry fully in accordance with the product instructions prior to application of MaxSeal.

4. PREVIOUSLY COATED SURFACES

Previously painted or coated surfaces must be carefully inspected to confirm adequate adhesion, compatibility, and overall integrity prior to the application of MaxSeal.

- All existing coatings must be sound, firmly bonded, and free from defects.
- Loose, flaking, peeling, blistered, chalking, friable, or otherwise deteriorated coatings must be completely removed back to a stable and sound substrate.
- Surfaces must be thoroughly cleaned and degreased to remove dirt, oils, contaminants, salts, biological growth, and any residues that may impair adhesion.
- Glossy, smooth, or dense coatings must be lightly abraded to provide a suitable mechanical key prior to application.
- All sanding residues must be removed before priming or coating.
- Where existing coatings are aged, chalking, porous, patch-repaired, uneven, or of unknown composition, or where coating history cannot be reliably established, the surface must be primed with Duravex BondPro Bonding Liquid prior to the application of MaxSeal.
- Previously coated surfaces that exhibit poor adhesion, incompatibility, excessive movement, or moisture-related defects are not suitable for direct overcoating and must be appropriately treated, isolated, or removed before proceeding.
- A test application is strongly recommended on all previously coated surfaces to confirm adhesion and compatibility prior to full-scale application.

5. METAL SUBSTRATES

Metal substrates, including mild steel, galvanised steel, and previously coated metal surfaces, must be carefully assessed to confirm suitability prior to the application of MaxSeal.

- All metal surfaces must be cleaned thoroughly to remove oils, grease, dirt, contaminants, oxidation products, and any residues that may impair adhesion.
- Surfaces must be free from active rust and corrosion. Any rusted areas must be mechanically cleaned back to sound metal prior to priming.
- Smooth, glossy, or factory-coated metal surfaces must be mechanically keyed where required to provide adequate adhesion.
- All metal substrates must be treated with Duravex IronPrime Metal Etch Primer, in accordance with the product instructions, and allowed to dry fully before the application of MaxSeal.
- Previously coated metal surfaces must be sound, firmly bonded, and compatible. Any loose, flaking, blistered, or deteriorated coatings must be removed prior to priming.
- All screw heads, fasteners, fixings, seams, laps, and penetrations must be:
  - Cleaned and degreased
  - Properly prepared
  - Primed with Duravex IronPrime Metal Etch Primer prior to waterproofing
- Where movement, joints, or penetration details present an increased risk of water ingress, appropriate detailing and reinforcement must be carried out in accordance with the application specification.

6. JOINTS, CRACKS, AND DETAILING AREAS

All cracks, joints, laps, seams, transitions, penetrations, and movement-prone areas must be identified and correctly detailed prior to the application of the full MaxSeal system.

- All cracks, joints, and detailing areas must be opened where required, cleaned thoroughly, and free from dust, loose material, contaminants, or moisture before treatment.
- Static cracks and joints must be suitably prepared and treated in accordance with the application specification prior to full coating.

- Dynamic areas, including movement joints, laps, seams, transitions, changes in plane, fixings, and penetrations, must be reinforced prior to full coating.
- A suitable non-woven or woven reinforcement membrane must be embedded into the first coat of MaxSeal while the coating is still wet.
- The reinforcement membrane must be fully saturated with MaxSeal to eliminate voids, air pockets, or dry spots.
- The reinforced area must be allowed to dry fully before applying subsequent coats of MaxSeal.
- Reinforcement must extend sufficiently beyond the crack, joint, or detail area to adequately accommodate movement and stress in service.
- Reinforcement is critical in all areas subject to movement, vibration, differential expansion, or increased risk of water ingress.

MaxSeal is not intended to bridge structural expansion joints or accommodate excessive structural movement. Such joints must be treated using appropriate joint detailing systems prior to the application of MaxSeal.

7. PRIMING

Priming shall be carried out where required, using Duravex-approved primers or other compatible primers appropriate to the specific substrate type, to ensure adequate adhesion and overall system performance.

- Friable, porous, dusty, or absorbent substrates, including masonry, plastered surfaces, and raw brickwork, must be primed with Duravex BondPro Bonding Liquid prior to the application of MaxSeal.
- Metal substrates, including mild steel, galvanised steel, and suitably prepared coated metal surfaces, must be primed with Duravex IronPrime Metal Etch Primer in accordance with the product instructions prior to the application of MaxSeal.
- Previously coated surfaces that are aged, chalking, porous, patch-repaired, uneven, or of unknown composition must be primed with Duravex BondPro Bonding Liquid prior to application.
- Duravex FibreFuse may be used as a reinforced sealing compound for the treatment of cracks, joints, laps, seams, fixings, penetrations, and detailing areas, where required, to provide additional strength and crack-bridging capability prior to the application of the full MaxSeal system.
- FibreFuse may be applied in conjunction with MaxSeal as part of the detailing process and does not replace the need for priming where priming is otherwise required by the substrate.
- All primers and detailing materials must be applied strictly in accordance with the relevant product instructions and allowed to dry fully before the application of MaxSeal.
- The suitability and compatibility of any alternative or third-party primers must be confirmed prior to use.
- MaxSeal is supplied ready for use and must not be diluted. No water, solvents, or additives may be added under any circumstances.

8. MIXING

MaxSeal shall be thoroughly mixed prior to application to ensure a uniform consistency and even distribution of components.

- Mixing must be carried out using a flat-blade paddle or slow-speed mechanical mixer to achieve homogeneity without introducing air into the material.
- High-shear, spiral, helix, or propeller-type mixers must not be used, as excessive agitation may result in aeration, foaming, or reduced film integrity.
- Mixing shall be performed at low speed only, with care taken to scrape the sides and bottom of the container to ensure full incorporation of settled material.
- Where mechanical mixing equipment is unavailable, manual mixing using a clean, flat-ended stick may be undertaken, provided mixing is carried out slowly and thoroughly to achieve uniform consistency.
- Where multiple containers or batches are used on the same application area, the material shall be intermixed (boxed together) prior to application to ensure consistency in colour, texture, and performance.
- MaxSeal is supplied ready for use and must not be diluted with water or any other substances.

9. APPLICATION METHOD

MaxSeal shall be applied in accordance with this specification using brush, roller or airless spray, as appropriate to the substrate orientation, detailing requirements, and system design.

- MaxSeal must be applied in a minimum of two (2) coats to achieve the specified waterproofing performance.
- On flat slab roofs and low-slope areas, where drainage is limited and increased waterproofing performance is required, the application of three (3) coats is recommended to enhance durability and long-term protection.
- Each coat must be applied uniformly at the recommended spread rate to achieve consistent coverage and the intended waterproofing performance of the system.
- Reinforcement membranes, where specified, must be embedded into the first coat while the coating is still wet, fully saturated, and allowed to dry prior to overcoating.
- Duravex FibreFuse may be used as part of the detailing process for cracks, joints, laps, seams, fixings, penetrations, and transitions, where required, in accordance with the application specification.
- Adequate drying time must be allowed between coats, dependent on ambient temperature, humidity, and ventilation conditions.
- Subsequent coats must not be applied until the previous coat has dried for the recommended overcoating time, taking into account ambient temperature, humidity, and ventilation conditions.
- Film thickness must be controlled and monitored throughout application to ensure the system achieves the specified waterproofing performance.
- Care must be taken to avoid over-application in a single coat, which may result in extended drying times, surface defects, or reduced film integrity.

10. APPLICATION CONDITIONS

Application of MaxSeal must be carried out only under suitable environmental conditions to ensure proper film formation, adhesion, and curing.

- Recommended application temperature range: 10 °C to 30 °C.
- Maximum allowable substrate and ambient temperature: 35 °C. Application above this temperature is not recommended.
- Application should be avoided during early morning condensation, periods of high humidity, late afternoon or evening cooling, or when dew formation is likely to occur.
- Application should also be avoided during periods of excessive heat, strong direct sunlight, or where rapid surface skinning may adversely affect curing and film integrity.
- Application must cease immediately if weather conditions become unstable or rainfall is imminent, and the applied coating must be protected from moisture until sufficiently cured.

Environmental conditions must remain suitable throughout application and the initial curing period to prevent wash-off, blistering, or compromised performance.

11. DRYING AND CURING

Drying and curing times are based on standard conditions of approximately 23–25 °C and 50–65% relative humidity. Actual drying and curing times may vary depending on ambient temperature, substrate temperature, humidity, air movement, film thickness, and site conditions.

- Touch dry: approximately 2–4 hours
- Recoating time: minimum 4 hours, subject to prevailing conditions and recommended overcoating guidelines
- Rain resistance: approximately 6–8 hours after the final coat, provided suitable curing conditions are maintained
- Full cure: up to 14 days, depending on environmental conditions and applied film build

The applied coating must be protected from moisture, rainfall, and premature service exposure during the drying and curing period. Lower temperatures, higher humidity, limited ventilation, or increased film thickness may extend drying and curing times.

12. CLEANING OF EQUIPMENT

All application equipment, tools, and mixing utensils must be cleaned immediately after use using clean water while the product is still wet.

13. HEALTH, SAFETY, AND HANDLING

Avoid skin and eye contact during handling and application. Appropriate personal protective equipment (PPE), including gloves, eye protection, and suitable protective clothing, should be worn.

Ensure adequate ventilation during application and throughout the drying period, particularly when working in enclosed or poorly ventilated areas.

- Skin contact: In the event of skin contact, wash immediately with clean water. Seek medical advice if irritation persists.
- Eye contact: In the event of eye contact, rinse immediately with plenty of clean water for several minutes. Seek medical attention if irritation persists.
- Inhalation: Avoid inhalation of vapours, fumes, or mist. Move to fresh air if discomfort occurs.
- Ingestion: If swallowed, do not induce vomiting. Rinse mouth with clean water and seek medical attention immediately.

This product should be handled and stored in accordance with good industrial hygiene practices. Refer to the Safety Data Sheet (SDS) for full details regarding health, safety, handling, storage, and emergency measures.

14. STORAGE

Store in a cool, dry area away from direct sunlight and frost. Containers must be kept tightly sealed when not in use.

15. LIFE EXPECTANCY

When applied strictly in accordance with the recommendations contained in this Technical Data Sheet, and subjected to normal environmental exposure and service conditions, the MaxSeal waterproofing system may provide a service life of up to ten (10) years.

To achieve the intended service life, it is recommended that the applied system be inspected periodically and that a maintenance coat be applied at approximately five (5) years, subject to exposure conditions, wear, and the service environment.

Actual service life will vary depending on substrate condition, surface preparation, application thickness, environmental exposure, movement, maintenance practices, and ongoing service conditions.

16. DISCLAIMER

The information contained in this Technical Data Sheet is based on laboratory testing, industry knowledge, and practical application experience and is provided in good faith as a general guide.

Product performance is dependent on factors beyond the manufacturer's control, including substrate condition, surface preparation, application method, environmental conditions, and workmanship. No guarantee or warranty of performance or suitability for any particular purpose is given or implied.

The manufacturer shall not be liable for any direct, indirect, incidental, or consequential loss or damage arising from the use or application of this product. Product specifications may be amended without prior notice. It is the responsibility of the user to ensure that the latest version of this Technical Data Sheet is consulted prior to application.

COMPATIBLE DURAVEX PRODUCTS



BondPro Bonding Liquid



IronPrime Metal Etch Primer



FibreFuse Fibre-Infused Waterproofing

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