



NBS model specification

M20 rendered coatings

Dryvit ACR 50™

Incorporating:
SG M20-Dryvit/160E



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DRYVIT ACR 50™

PRODUCT DESCRIPTION

Dryvit ACR 50™ crack resistant render system offers better flexural properties and design versatility than a traditional render. The system is commonly used in conjunction with Dryvit external insulation and finish systems (EIFS) where energy efficiency is not a requirement.

The render system is suitable for applications on a wide range of building substrates as a means of levelling with a wide range of finishes in various textures and colours.

SCOPE

This specification is based on NBS standard version M20 dated September 1998 and is intended to be used with the standard or intermediate version of this section to produce project specifications.

For guidance on the specification of other Dryvit products see specification guides:

H20 – Rigid Sheet Cladding

SG H20-Dryvit/150, Dens -Glass® Gold

H92 - Rainscreen System: Insulation with render

SG H92-Dryvit/120A, Infinity® Wall System

M20 - External Insulation and Finish Systems

SG M20-Dryvit/160A, Dryvit ACR 300™
SG M20-Dryvit/160B, Dryvit ACR 200™
SG M20-Dryvit/160C, Dryvit ACR 150™
SG M20-Dryvit/160D, Dryvit ACR 100™

M21 – Acrylic Based Anti-Crack Render Systems

SG M21-Dryvit/210A, Outsulation® Plus System
SG M21-Dryvit/210B, Outsulation® System
SG M21-Dryvit/210C, Roxsulation® System
SG M21-Dryvit/210D Residential MD System®
SG M21-Dryvit/220A, Dryvit Rail System™

M60 - Acrylic-based finish coatings

SG M60-Dryvit/110A, Dryvit Finish Coats



Dryvit specification clauses are also available in NBS Plus to registered subscribers.



GUIDANCE ON USE

INTRODUCTION

Specification Guides

These are produced by manufactures to facilitate the specification of their products in NBS. A license must be obtained from NBS Services prior to publication, which requires model specifications to be compatible with the correspondence NBS work section.

Specification Guides contain a set of 'proprietary' clauses-edited versions of generic NBS clauses, and new clauses written by the product manufacturer. To specify the product, some or all of these clauses are incorporated in the corresponding NBS work section. It is not possible to produce a project specification by using the clauses from the Specification Guide in isolation-generic clauses must also be used.

An unlimited number of Specification Guides can be used to specify products in an NBS work section, e.g. Specification Guides by several manufactures could be used to specify Plastered/Rendered/Roughcast Coatings in section M20.

Specification Guides are based on the corresponding NBS Standard Version, but can generally be used in conjunction with the Standard or Intermediate Version.

Reference numbers

Each NBS specification guide is identified by a unique reference number, e.g. SG M20-Dryvit/160E (Specification Guide M20-Dryvit/160E Dryvit ACR™ 50 System etc.).

Clause numbers

Edited versions of NBS clauses are given a new clause number with a single character suffix, e.g. clause M20/160 might become M20/160A to M20/160E etc.

Clauses written by the product manufacturer are allocated a new clause number - these also include a single character suffix, e.g. M20/160A.

Model specifications index

This is located in the first ring binder, and in the NBS for Windows and Specification Manager manuals. It comprises a 'Model Specifications Index' which lists the model specifications available in each work section, and a 'List of Manufactures' which lists the model specifications produced by each company.

Specification Guides need to be revised when the manufacturer makes changes to the product of product range. They may also need to be revised following an update of the NBS work section on which they are based. Appropriate details will be provided in the Model Specifications Index, which should be checked to ensure a current Specification Guide is being used. The index is revised twice a year to coincide with NBS updates, but if in doubt about the status of a Specification Guide, check with the manufacturer using the telephone or fax shown on the first page of this document.

SPECIFICATION PRODUCTION

Using a computer

These instructions will be appropriate if you are producing a product specification 'on screen' using Specification Manager or a word processing package - for the latter it is necessary to have access to NBS text files through membership of the NBS disc service or NBS for Windows.

If you also have access to a text file containing the Specification Guide, copy and paste the clauses you require into the appropriate NBS text file(s). Otherwise, edit the text file(s) in accordance with the alterations shown in the Specifications Guide - the following conventions are used:

- **'Proprietary' text is shown in bold italics.**
- Irrelevant or inappropriate NBS text is shown ~~struck out~~.

The 'proprietary' text added to the NBS computer file should be formatted in a plain font style, not in bold italics. The latter is only reproduced on paper copy for the identification purposes explained above.

Complete the specification in the normal manner, with the help of clause guidance from the NBS section and the Specification Guide.

Ensure that clause numbers are not duplicated - especially where they have been incorporated from more than one Specification Guide.

Using mark-up copy

You need an NBS mark-up copy of the relevant work section (or a print out from your computer), and a photocopy of the Specification Guide to use as supplementary mark-up copy. Use these side by side and complete the specification in the usual manner, selecting NBS and Specification Guide clauses as appropriate.

As work proceeds, record the selection of Specification Guide clauses in the margin of the NBS mark-up copy, e.g. Insert 150A [refer to separate page]. between NBS clauses 150 and 160.

Ensure that clause numbers are not duplicated - especially where they have been incorporated from more than one Specification Guide.

Inform the person who is going to word process the specification about the text formatting conventions described above (see 'Specification production using a computer'). They should also understand that mark-up copy which includes a company name or logo in the header originates from a Specification Guide - the clauses on these pages will not be found in the NBS text file and will need to be copied across or keyed in as described above. The specification is completed in the normal manner by editing the NBS text file in accordance with the hand-written notes on the mark-up copy.

GUIDANCE NOTES

Dryvit UK Ltd,

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Web: www.dryvit.co.uk email: ukenquiries@dryvit.com

Dryvit has been part of the Exterior Insulation and Finish Systems industry for over 30 years with a world-wide portfolio of systems and projects of various sizes. An RPM subsidiary company with ISO 9001.

All Dryvit Systems offer unlimited design freedom with high performance properties. The Dryvit range of systems are specified to meet all the functional and aesthetic needs of a building's external envelope, allowing the designer to select from a large variety of textured finishes and colours.

We suggest the designer contact Dryvit in the first instance to discuss specific needs, so that the appropriate Anti-Crack Render Systems can be recommended. You can contact us directly by telephone, fax, email and also visit our web site as detailed above.

Dryvit also manufactures and supplies system products suitable for rainscreen applications, external insulation and finish systems and acrylic textured and non-textured coatings. Please refer to work sections H92, M21, M60 & H20.

Dryvit® Anti-Crack Render (ACR) systems are available for a variety of applications and substrate types suitable for commercial and residential projects.

1. **Dryvit ACR 300™**: High performance crack resistant non-cementitious base coat incorporating an alkali-resistant glass fibre reinforcement providing ultimate flexibility and crack resistant properties with either the Dryvit 100% acrylic PMR & DPR coating or the ELASTOMERIC finish plus the option of the two component pre-bagged polymer modified render.
2. **Dryvit ACR 200™**: Crack resistant polymer modified cementitious base coat incorporating an alkali-resistant glass fibre reinforcement with the Dryvit 100% acrylic PMR finish coat and DPR technology plus the option of the two component pre-bagged polymer modified render. This system is truly flexible offering crack resistance.
3. **Dryvit ACR 150™**: Two component pre-bagged polymer modified render incorporating a lightweight fibre reinforcement to increase the flexural strength and crack resistance including the Dryvit ELASTOMERIC 100% acrylic PMR finish coat and DPR technology with all the benefits of Dryvit ACR 100.
4. **Dryvit ACR 100™**: Cost effective system

MODEL SPECIFICATION CLAUSES

M20 DRYVIT ACR 50™

To be read with Preliminaries/General conditions.

TYPE(S) OF COATING

incorporating the Dryvit ELASTOMERIC 100% acrylic PMR and DPR technology finish coat offering hairline crack bridging capabilities and the option of a two component pre-bagged polymer modified render with the benefits of Dryvit ACR 50.

5. **Dryvit ACR 50™**: Cost effective system incorporating the Dryvit 100% acrylic Proven Mildew Resistant (PMR) and Dirt Pickup Resistant (DPR) technology finish coat plus the option of a two component pre-bagged polymer modified render offering greater flexural strength than that of a traditional sand/cement render system.

160E ACRYLIC BASED ANTI-CRACK RENDER SYSTEM

(SG M20-Dryvit/160E)

Dryvit ACR 50™ System

- **Location:** [*Insert, e.g. External walls, from First to Tenth Floor Levels (as applicable)*].
- **Manufacturer:** Dryvit UK Ltd., Unit 4 Wren Park, Hitchin Road, Shefford, Beds. SG17 5JD Tel: 01462 819555; Fax: 01462 819556. Web: www.dryvit.co.uk; email: ukenquiries@dryvit.com
- **Background:** [*Insert, e.g. Existing brick masonry wall*]. Dryvit ACR 50 can be applied over the following substrates:
 1. Painted (existing)
 2. Concrete old & new
 3. Existing renders
 4. Brickwork
 5. Blockwork.
- **System Reference:** [**Dryvit ACR 50 System**]. Crack resistant render consisting of a standard PMRB 100% acrylic coating providing excellent resistance to weathering, cracking, dirt pickup and formation of mildew. If levelling of the given substrate is required then a dry mix polymer modified re-proofing mortar can be used, applied over a water based wall conditioner. See System components below for detailed description or contact Dryvit Ltd for further technical information.
System components:
 - A. Optional Prymit® 100% acrylic water based wall conditioner to ensure excellent adhesion and alkali resistance. Used to assist bond of re-profiling mortar onto existing brickwork, stone, tile or concrete substrates. Prymit® also to promotes proper curing.
 - B. Optional two component re-profiling mortar and acrylic admixture:
 1. Stucco Plus® factory prepared dry mix re-profiling mortar providing a trowel applied levelling coat of 3-12mm in one application.
 1. Stucco Plus Admixture® used to give workability ensuring ease of application by trowel and also to improve curing and bond strength.
 - C. PMRB® Finish: A factory mixed 100% acrylic -based coating to provide excellent resistance to weather, cracking, dirt pickup and formation of mildew.

160E ACRYLIC BASED ANTI-CRACK RENDER SYSTEM

- Location: [_____].
- Manufacturer: **Dryvit UK Ltd, Unit 4 Wren Park, Hitchin Road, Shefford, Beds. SG17 5JD Tel: 01462 819555; Fax: 01462 819556; Web: www.dryvit.co.uk; email: ukenquiries@dryvit.com** .
- Background: [*Existing brick masonry wall*].
- **System Reference:** **Dryvit ACR 50™ System**
- **Preparation:** [*Surface shall be prepared as per manufacturers instructions*].
- **Re-profiling Coat:** [*Stucco Plus re-profiling coat*].
- Thickness (**excluding dubbing out**): [*4-6mm*].
- **Finish Coat:** [*Standard PMRB with Colorprime*
Texture: e.g. Sandpebble Fine
Colour: From Dryvit standard range].
- Accessories: [*To Dryvit recommendation*:
 1. External corner beads.
 2. Expansion joints to align with structural movement joints (through or surface, and to align with structural movement joints.
 3. [*Feature beads—rustication, flashgap or*
 4. *other architectural features.*
 - See Clause M20:632A & 640A].
- **Other requirements:** [*Co-ordinate the Work with interfacing building elements*
 1. *Electrical fittings by others.*
 2. *Mechanical Services by others.*
 3. *Access equipment bracket penetrations by others.*
 4. *Windows by others.*
 5. *Doors by others*].

- **Preparation:** The substrate shall be clean and free from foreign materials such as oil, dirt, dust, moisture, frost and any other materials that may affect the application of the materials. [*Insert e.g. Surface shall be prepared as per manufacturers instructions*].
- **Re-profiling Coat:** [*Stucco Plus re-profiling coat used if required to level the given substrate prior to the end finish coat application*].
- **Thickness:** [____mm]. . Stucco Plus can be applied from 3– 12 mm in one pass. Clause asks for thickness excluding dubbing out. Dubbing out may have to be carried out as a separate application if overall application exceeds 12mm.
- **Finish Coat:**
 - [A. *Colour: See Dryvit's standard colour chart or as instructed by the Architect/CA. Consult Dryvit Uk for colour samples.*
 - B. *Texture: See Dryvit's standard range or as agreed with the Architect/CA as per sample panel. J. Dryvit High performance finishes and coatings are available in standard colour range and can be customised to achieve special finishes providing protective and decorative properties to suit substrate. The finishes offer low maintenance advantages with DPR™ (Dirt Pickup Resistance) and PMR™ (Proven Mildew Resistance) technology.*
 - The various texture and finish types are:
 1. Standard 100% acrylic textured finishes with Proven Mildew and Dirt Pick Up resistance technology. Colorprime primer.
 - a. Freestyle®
 - b. Sandblast®
 - c. Sandpebble Fine™
 - d. Sandpebble®
 - e. Quarzputz®
 2. Standard non-textured acrylic finishes containing the DPR & PMR technology:
 - a. Demandit® (Weathercoat™ Smooth)
 - b. Revyvit® (Weathercoat Textured)
 - c. Sealclear
 3. Speciality Acrylic Finishes if requested:
 - a. Ameristone
 - b. Stone Mist®
 - c. Metallics
 - d. Custom Brick®/Stone
 - e. Interior Finishes

Customisation of finishes to the Architect/CA requirements can be obtained. Contact Dryvit to discuss various possibilities prior to specifying non-standard options.
- **Accessories:** To Dryvit recommendation:
 1. Dryvit External corner beads.
 2. Dryvit Stop beads/surface stop beads.
 3. Expansion joints to align with structural movement joints (through or surface, and to align with structural movement joints).
 4. [*Feature beads– rustication, flashgap or other architectural features.*
 5. *Feature Trims – cornices or other architectural features*].

See Clause M20:632A & 640A.
- **Other requirements:** [Co-ordinate the Work

with interfacing building elements

1. Electrical fittings by others.
2. Mechanical Services by others.
3. Hydraulic Services by others .
4. Access equipment bracket penetrations by others.
5. Metal coping by others.
6. Windows by others.
7. Doors by others.
8. Roof flashings by others.
9. Roof eaves boards by others.
10. Signage by others].

GENERAL REQUIREMENTS FOR WORKMANSHIP

- 409 SAMPLES: Before placing orders submit for approval representative samples of _____
- 418 CONTROL SAMPLE(S): Complete sample area(s), being part of the finished work, in approved location(s) as follows, and obtain approval of appearance before proceeding: _____
- 423 UNIFORMITY OF COLOUR AND TEXTURE: Once samples of coatings have been approved, do not change type or proportion of constituent materials. Ensure that supplies of materials are sufficient to give consistent and uniform colour and texture. Obtain each material from one-source and mix different loads if necessary.
- 458 CONTAMINATION: Do not allow contamination of one type of material by another, or by any set material.
- 461 INITIAL SET: Do not use mixes after initial set has taken place. Do not retemper or reconstitute mixes, unless permitted by the manufacturer of proprietary mixes.
- 466 SCAFFOLDING: Use independent scaffolding to avoid putlog holes and other breaks in coatings.
- 469 CLEANLINESS: Protect thoroughly all existing work and approaches using suitable boards, sheets, etc. Clean off all droppings on to finished work immediately.
- 474 COLD WEATHER:
 - Do not carry out external work when air temperature is below 3°C and falling or below 1°C and rising.
 - Take all necessary precautions to enable internal coating work to proceed without damage when air temperature is below 3°C.
 - Do not use frozen materials and do not apply coatings to frozen or frost bound backgrounds.

PREPARING BACKGROUNDS

- 507 ACCEPTANCE OF BACKGROUNDS: Before preparation or application of coatings ensure that:
 - Backgrounds are secure, adequately true and level to achieve specified tolerances, free from contamination and loose areas, reasonably dry and in a suitable condition to receive specified

		<p>coatings.</p> <ul style="list-style-type: none"> - All cutting, chasing, fixing of concealed conduits, service outlets and the like, and making good of the background, is completed.
	511	<p>PREPARATION GENERALLY:</p> <ul style="list-style-type: none"> - Remove efflorescence, dust and other loose material by thoroughly dry brushing. - Remove all traces of paint, grease, dirt and other materials incompatible with coating by scrubbing with water containing detergent and washing off with plenty of clean water. Allow to dry before applying coatings unless specified otherwise.
	515	<p>KEYING/BONDING: Prepare backgrounds as specified for the type of coating to be applied. Methods other than those specified may be submitted for approval.</p>
	518	<p>IN SITU CONCRETE SURFACES: Scrub with water containing detergent to ensure complete removal of mould oil, surface retarders and other materials incompatible with coating. Rinse with clean water and allow to dry unless specified otherwise</p>
	521	<p>SMOOTH CONCRETE SURFACES: Where no keying mix or bonding agent is specified, wet smooth concrete surfaces immediately before plastering.</p>
	524	<p>PREVIOUSLY PAINTED SURFACES: Remove all paint by needle hammering or other suitable method.</p>
	573	<p>TREATMENT OF ORGANIC GROWTHS: Biocides must be approved and registered by the Health and Safety Executive (HSE) and listed in the current 'Reference Book 500', as surface biocides.</p>
	598	<p>REPAIRING MINOR CRACKS IN PLASTERWORK</p> <p>Thoroughly brush cracks clean. Where necessary carefully cut back edges of plaster either side of cracks to produce a firm edge. Lightly dampen cracks to control suction, fill with _____ and finish flush with surrounding plaster. For decorative plasterwork, ensure that surface profiles/patterns are continued accurately.</p>
		<p>BACKINGS/BEADS/JOINTS</p>
632A		<p>BEADS/STOPS FOR EXTERNAL OR INTERNAL USE: Material: [<i>Powder Coated Aluminium/galvanised steel/stainless steel/aluminium</i>]. Manufacturer: Dryvit UK Ltd.</p>
640A		<p>BEADS/STOPS GENERALLY</p> <p>As per clause.</p>
	632A	<p>BEADS/STOPS FOR EXTERNAL OR INTERNAL USE: Material: [<i>e.g. Powder Coated Aluminium</i>]. Manufacturer: [<i>Dryvit UK Ltd</i>].</p>
	640A	<p>BEADS/STOPS GENERALLY:</p> <ul style="list-style-type: none"> - Provide beads/stops at all external angles and stop ends except where specified otherwise. - Cut neatly, form mitres at return angles and remove sharp edges, swarf and other potentially dangerous projections.

650A CONSTRUCTION/MOVEMENT JOINTS: The construction or expansion joints must align with the movement joints (note: movement joints are the responsibility of the Designer/Architect and shall be indicated on Design Drawings). Movements joints shall be incorporated where:

1. Expansion joints occur in the substrate system.
2. Building expansion joints occur.
3. [*At butts/interfaces of dissimilar materials.*
4. *The substrate changes.*
5. *Significant structural movement occurs such as changes in roofline, building shapes or structural system.*
6. *Other special locations.]*.

651A SEALANT JOINTS:
As per clause.

655A [*CONDUITS should be chased into wall sufficiently to give a minimum of 5mm re-profiling coat cover.*
OR
- *CONDUITS should be surface mounted*].

810A GENERAL APPLICATION
GENERAL REQUIREMENTS
AS Clause.

INSTALLATION: Dryvit operates a Dryvit Applicator Training programme for Specialist Installers of their manufactured EIFS systems. The levels of applicators to be employed to undertake the work depend upon the type of contract. Contact Dryvit for advice. There are three levels of training:

Level 1: Applicator must attend a combined practical and theory training course to demonstrate they are conversant in the use of the Dryvit materials, associated tools and basic details skills.

Level 2: Advanced Applicator level cardholder is a continuation of level 1 applicator but with advanced detail skills and a measure of the continued practical experience.

Level 3: Supervisor level cardholder is a senior applicator and must provide references of Dryvit system applications to demonstrate their practical experience. Must complete a

- Fix securely, using the longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with background. Use mechanical fixings for external beads/stops [**or Dryvit Adhesive**].
- After coatings have been applied, remove coating material while still wet from surfaces of beads/stops which are to be exposed to view.

650A CONSTRUCTION/MOVEMENT JOINTS: **Form joints accurately to detail and in locations shown on the [Design]. Drawings. If modifications to any joint location or design are necessary on site, agree revisions with Architect/CA before proceeding.** Movements joints shall be incorporated where:

1. *Expansion joints occur in the substrate system.*
2. *Building expansion joints occur.*
3. *Insert as applicable*].

651A **SEALANT JOINTS:**
- **Location(s):** [*insert as applicable*].
- **Sealant:** [*insert as applicable*].
- **Form in accordance with section Z12 and system manufacturer's recommendations using any necessary joint fillers, backing strips, etc.**

655A [*CONDUITS should be chased into wall sufficiently to give a minimum of 5mm re-profiling coat cover.*
OR
- *CONDUITS should be surface mounted*].

RENDERING

810A GENERAL APPLICATION

GENERAL REQUIREMENTS:

- Apply each coating firmly to achieve good adhesion and in one continuous operation between angles and joints.
- All coatings to be not less than the thickness specified, firmly bonded, of even and consistent appearance, free from rippling, hollows and ridges.
- Finish surfaces to a true plane, to correct line and level, with all angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
- Prevent excessively rapid or localised drying out.

- **INSTALLATION: *The coating shall be applied to Dryvit written instructions by Dryvit trained applicators. [At least one applicator on site must be a Level 3: Supervisor level cardholder or as agreed with the manufacturer/Architect]*.**

- **INSPECTION OF COMPLETED INSTALLATION: *As soon as possible after completion of the work and before removing***

multiple-choice paper on Dryvit materials and their applications and must be capable of training the applicators under their supervision.

INSPECTION OF COMPLETED
INSTALLATION:

As per clause.

812 SUPPORTS FOR SERVICES/FITTINGS

As per clause.

880A DRYING

As per clause.

scaffolding, carry out an inspection with the CA to identify any defects.

812 SUPPORTS FOR SERVICES/FITTINGS:

Provide secure supports for soil and rainwater pipe brackets and the like in locations shown on drawings. Type as recommended by system manufacturer.

880A DRYING:

- **Work in the shade and out of drying winds whenever possible.**
- Keep each undercoat and final coat damp for the first 3-4 days by covering with polyethylene sheet and/or spraying with water. Hang sheeting clear of the final coat where it is the final finish. Thereafter prevent from drying out too rapidly.
- **Allow each coat to dry out thoroughly to ensure that drying shrinkage is substantially complete before applying next coat.**

890 PROTECTION: Adequately protect newly applied external coatings against frost and rain for the first 48 hours using polyethylene sheet hung clear of the face, or other approved method.

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