

Code for Sustainable Homes

Determination of credits available where robust details are registered

Introduction

The [Code for Sustainable Homes \(CSH\)](#) includes provision to allow credits to be awarded for those registering to use robust details, this is based on their proven performance. An up-to-date table summarising the number of credits currently available is maintained on the Robust Details Ltd (RDL) website, this document describes how the number of credits currently available have been determined and how the table will be maintained in the future.

The [Technical Guidance Manual \(TGM\)](#) to the Code outlines how credits are awarded. The criteria published in the TGM relate solely to 'mature' Robust Details, as described below. Subsequent discussions with CLG have allowed RDL to award credits to new RDs and others that have not achieved 'mature' status, noting that these criteria are necessarily more onerous than those that apply to a frequently field-tested form of construction.

Had CSH credits only been awarded to RDs with e.g. more than 100 test results, there would be a number of disadvantages including:

- builders would be less likely to use new RDs which may be excellent performers but would not be entitled to any CSH credits for a considerable time
- since test sample sizes are geared to sales, the lack of incentive to use a new RD would be likely to lower demand such that it would take longer for such an RD to reach 100 tests
- the above could discourage suppliers and manufacturers from proposing new RDs

In order to enable new and low use RDs to be evaluated for entitlement to CSH credits, three categories have been adopted, as indicated in the table below.

Category	Definition	Credits Award
Mature Robust Detail	More than a one hundred dwellings subject to field test	based on most recent 100 tests (to end of last testing quarter) - using the 90th percentile rule
New Robust Detail	Less than 12 months availability for registrations	based on (1) CRD data - lowest recorded measurement; and (2) modified/downgraded if 2 or more field tests (to end of last testing quarter) give poorer results
Low use RD	Available for registration for more than 12 months but with less than 100 tests	Ditto New RD (above)

Mature RDs

Code Credits are awarded on the basis of the most recent 100 tests, reviewed quarterly by RDL's Performance and Monitoring Committee (P&MC).

The '90th percentile' rule applies, as described in the CSH Technical Guidance notes. The award level will be changed (upgraded or downgraded) if the average of four quarter's (consecutive) data was indicative of long term change (improvement or deterioration). Thus, one quarter's dip in performance (perhaps an 88% figure for conformance with CSH targets) would be acceptable, provided that results from the three other previous quarters, aggregated together, still achieve the 90% mark.

This principle will also be applied where performance is exceptionally high. A single quarter in which results were suggestive of an upgrade, perhaps from 3 credits to 4, would be aggregated along with the other three quarters to establish whether long term change had occurred.

At the end of each quarter, the 90 per cent rule will be applied to the most recent 100 tests, including those which took place in that quarter.

Three percentage figures have been established:

- %age 3dB or more better than Building Regulation Requirement
- %age 5dB or more better than Building Regulation Requirement
- %age 8dB or more better than Building Regulation Requirement.

For the first round of awards (May 2007), where this %age exceeded 90%, then 1, 3 or 4 credits have been awarded accordingly. After 3 further quarters, during which the same criteria would apply, the P&MC will review the results and consider whether a change in the level of award was merited, and recommendations will be made to the RDL Board at its next meeting.

This approach has been adopted to remove any uncertainty that would otherwise attach to quarterly fluctuations, especially where a batch of either very good or very bad results were received.

New RDs

Code Credits are awarded on the basis of results from the 30 Candidate tests subject to taking account of any field test results available as described below.

The '90th percentile' rule DOES NOT apply.

For the first round of awards (May 2007), 1, 3 or 4 credits have been awarded based on the lowest actual test result value, as determined by RDL's Assessment and Approval Committee (A&AC).

If the lowest test result value was 3dB better than the Building Regulation Requirement, 1 credit has been awarded, with three credits awarded if the lowest result was 50dB and four credits if the lowest candidate result was 53dB.

New RDs are subject to the performance monitoring undertaken on all registered RDs. A single poor result, when compared to that achieved during the Assessment phase, will be disregarded, however, two poor results from separate developments, will require a reassessment of the credits awarded.

Thus a 1-credit RD wall, with two field test results less than 48dB would be downgraded to a zero award. The situation would be reviewed once 100 tests were achieved (and the RD achieved 'mature' status). Similarly, if a 3-credit RD gave rise to two or more results at 48 or 49 dB, it would be downgraded to a 1-credit RD; or a 0-credit RD if both were less than 48dB.

Action to downgrade new RDs will be reviewed quarterly by the P&MC.

New RD ratings are classified as 'provisional' on the table published on the RD website, indicative of the fact that whilst credits have been awarded for CSH purposes, assessors should check the status of these RDs on a regular basis to ensure that the level of awards has not changed during the Code assessment/construction phase of the development in question.

Low Use RD

Code Credits are awarded on the basis of the results from the 30 Candidate tests and field test results recorded thereafter.

Once again, the '90th percentile' rule DOES NOT apply.

For the first round of awards (May 2007) 1, 3 or 4 credits have been awarded on the basis of the lowest actual measurement.

If the 'Candidate' lowest figure was 48dB, then 1 credit has been awarded (subject to evaluation against the field data); with 3 credits awarded if the lowest result was 50dB and 4 credits if the lowest candidate result was 53dB.

As with new RDs, a single poor result during the monitoring phase will be disregarded but two poor results, from separate developments, will require a reassessment of the award. The situation will be reviewed once 100 tests have been achieved (and the RD achieved 'mature' status).

Action to downgrade Low Use RDs will be reviewed quarterly by the P&MC as for new RDs.

Again, Low Use RD credits are classified as 'provisional' on the table published on the RD website, indicative of the fact that whilst credits have been awarded for CSH purposes, assessors should check the status of these RDs on a regular basis to ensure that the level of awards has not changed during the Code assessment/construction phase of the development in question.

Summary of Rules for New and Low Use RDs

The table below illustrates the principle for determining the number of credits awarded for separating walls. The same principle is proposed for impact sound in the case of separating floors.

For new RDs with no field data, use column 1 only. Then read off the credits entitlement in column 3. Ignore column 2.

For New RDs with field data, or Low use RDs with field data (but <100 test results), use column 1 and column 2 in turn. Both sets of criteria must be satisfied in order to earn the credits allocation in column 3.

“NEW RD” - BASED ON 30 TESTS FROM CRD ASSESSMENT - <i>lowest score</i>	“NEW” OR “LOW USE RD” - BASED UPON: (A) THE 30 CRD TEST RESULTS (using column 1 [left]) AND (B) ANY FIELD TEST DATA	Credits Award
47dB	N/a	0
48dB or 49dB	No results, or just 1 result, worse than 48dB	1
48dB or 49dB	2 results (or more) worse than 48dB	0
50dB, 51dB or 52dB	No results, or just 1 result, worse than 50dB	3
50dB, 51dB or 52dB	2 results (or more) worse than 50dB; 'second worse' result is either 48dB or 49dB	1
50dB, 51dB or 52dB	2 results (or more) worse than 50dB; 'second worse' result is lower than 48dB	0
53dB or higher	No results, or just 1 result, worse than 53dB	4
53dB or higher	2 results (or more) worse than 53dB; 'second worse' result is 50dB, 51dB or 52dB	3
53dB or higher	2 results (or more) worse than 53dB; 'second worse' result is 49dB or 50dB	1
53dB or higher	2 results (or more) worse than 48dB	0

The evaluation of floors is based upon the same principles for both airborne and impact THEN the lowest credits award (airborne or impact) would determine the credits entitlement.

For example, if a floor achieved a 3-credit rating for airborne and a 1-credit rating for impact; the entitlement would be 1. Credits available for Top storey flats are based on airborne performance only.

Should you wish to discuss how credits are awarded please contact RDL Technical:

0870 240 8209

technical@robustdetails.com