TG1 DECISIONS

No	TG1 additional requirement	Relevant contemporary Standard / clause	Date added or changed	Status	Incorporated Standard / clause
1	Participation of non TG1 members: Authors and co-authors of a report are welcome to be present during the discussion of their reports. They are not allowed to take part when decisions are taken.	General	2012/03	TG1 active	None (TG1 operation)
17	If an old TG1 report is cited in a report which is to be discussed in a meeting, it need to be uploaded on the website prior to the meeting, otherwise the report will not be discussed.	General	2013/02 2017/03	TG1 Active	None (TG1 operation)
20	For a report dealing with wet grading the dimensions of the wet timber should be included in the report. The permitted timber size for wet grading in the ITT could be based on wet conditions.	EN 14081-2:2018 clauses 6.1 and 6.6 point a	2013/09 2019/10	TG1 Active	Needs to go into EN14081-2 Clause 6.1 and Clause 6.6 point a
21	2018/10 changed to recommendation rather than a requirement. Moisture content alternatives for inclusion in the ITT: Alternative 1 is where the machine measures the moisture content of each piece and adjusts the settings model to determine the grade. 'Moisture content of each piece shall be between X1% and Y1%.' Alternative 2 is where the machine doesn't measure the MC but a mean value for the batch is fed in by the machine operator and the machine adjusts the settings model accordingly to determine the grade. 'Mean moisture content of a batch shall be between X2% and Y2% and all pieces in the batch shall not deviate by more than four percentage points from the mean.' Alternative 3 is where there is no moisture measurement or adjustment but moisture range is justified in the report: 3a 'Moisture content of each piece shall be between X3% and Y3%.' Or 3b 'Mean moisture content of a batch shall be between X4% and Y4% all pieces in the batch shall not deviate by more than four percentage points from the mean.' A machine can apply more than one alternative.	EN 14081-2:2018 Clause 6.2 and 6.6 point c.	2013/09 2018/10 2019/10	TG1 Advice	

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22	It is possible to publish visual grading assignments, approved by TG1 and intended for a future version of EN1912, as AGRs by uploading to the SG18 website. ~~Added 2015/10: The country code in the report number relates to country publishing the grading rules (not the source). When the grading rules are not published by a single country the code should be X.~~ Updated 2019/10: Instead of individual AGRs for each pending visual grading assignment, a single AGR document listing pending visual assignments for EN1912 will be produced. Whenever this is updated it will be sent to WG2.	General	2014/03 2015/10 2019/10	TG1 active	None (TG1 operation)
23	Reports to be assessed shall be ready by end of February or end of September in order to ensure that they are discussed in the meeting of TG1 in spring and autumn. A meeting might not go ahead if there are no reports announced by this date. (Deadlines were moved back one month at the 2019/10 meeting to allow more time after the Christmas break)	General	2013/02 2019/10	TG1 active	None (TG1 operation)
24	In the case the report is amended, the ITT table should reference the latest version of the report. The latest version of the report should reference all previous reports that are still relevant (to maintain traceability of all information – model, sampling, testing etc).	EN 14081-2 2010+A1 2012	2015/10	TG1 active	None (TG1 operation)
26	~~When visual grading assignments have been incorporated into EN1912 the corresponding AGR is to be withdrawn. The AGR will be edited to state that it now withdrawn, but the content will be retained for archival reasons. Before then, if visual grading AGRs need to be updated they are to be given a new report number, and the old one is to be withdrawn. The content will be retained for archival reasons.~~ When visual grading assignments have been incorporated into EN1912 they are to be removed from the AGR document listing pending visual assignments.	General	2016/03 2019/10	TG1 active	None (TG1 operation)
27	Whenever this decision list, the sampling guidelines, or the AGR listing pending visual assignments for EN1912 are revised, it shall be stated in the minutes, and a copy of the revised document will accompany the minutes to WG2.	General	2016/03 2019/10	TG1 active	None (TG1 operation)

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28	A series of bending testing and a series of tension testing may be used together to create machine control settings that grade to a combination of bending and tension strength classes. The IP model and thresholds are common, and verification clauses can be applied to the appropriate testing dataset. For the verification of the tension strength grades the sample tested in tension is used. For the verification of bending strength classes the sample tested in bending is used. For verification, lower and upper thresholds are applied on the relevant sample. In order to do the cost matrix calculation it is necessary to define bending and tension strength classes that are comparable to the ones being substituted for in the calculation. The cost matrix check is then applied on the bending sample and, again on the tension sample. These substitute strength classes need to match or exceeded the characteristic values of the strength class they substitute for. This is conceptually the same as two entirely separate verification calculations with common threshold limits for both bending and tension and merging the settings table.	EN 14081-2 See also minutes of TG1 meeting November 2021	2022/11	TG1 active	Possible addition to a revised EN 14081-2
29	For visual grading reports EN 384 already requires confirmation from the author that they consider the requirements of Annex A of EN 14081-1 are met for the visual grading standard used. This should be in writing in the report and not just verbally in the meeting. The report should also contain an English translation of the relevant part(s) of the visual grading rules (or cross-reference to a report in the TG1 archive that contains this)	EN 384 clause Annex A (a) EN 14081-1:2016+A1:2019 Annex A EN 14081-2:2005+A1:2011 Annex A	2022/11	TG1 active	Possible clarification in a revised EN 384
30	EN 384 is unclear about expectations on the rounding and checking targets are met for visual grading calculations. EN 14081-2 has more information, but could still be improved.	EN 384 EN 14081-2 (or EN 14081-1)	2022/11	TG1 active	Possible clarification in a revised EN 384 and EN 14081-2 (or EN14081-1)

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	In the reports, it is expected that: Density is rounded to the nearest 1 kg/m^3 (usually three significant figures) Stiffness is rounded to the nearest 10 N/mm^2 (0.01 kN/mm^2) (usually three or four significant figures) Strength is rounded to the nearest 0.1 N/mm^2 (usually three significant figures) Similar appropriate precision should be used for other numerical data Values must equal or exceed their target after rounding as above. Rounding to less precision to make the calculation pass is not acceptable. Calculations may be done on unrounded numbers				
31	The description for calculating the permitted size range for grading is clarified as follows: Both ends of the cross-section thickness and width range shall be determined by a sampled dimension for which there are at least 40 pieces as follows: · The lower limit (an integer of millimetres) is not less than 90% of the sampled dimension that sets the limit. · The upper limit (an integer of millimetres) is not more than 110% of the sampled dimension that sets the limit. The “sampled dimension” refers to the dimensions of timber tested at the point relevant to the grading. For green settings this is the green dimension – see decision #20. So long as it is safe to do so, it is possible to include pieces in the grading sample that are smaller or larger than the sizes that set the limits. For example, the smallest pieces might be 72 mm in width but there only be 30 of them. The lower width limit might therefore be set by 40 pieces of 100 mm width. The rule on permitted size range does not mean it is always	EN 14081-2 6.1	2023/11 2024/04	TG1 active	Possible clarification in a revised EN 14081-2

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	necessary to remove the 72 mm pieces simply because they are smaller than 90 mm. However, the overarching requirement for settings to be safe applies, and it may nevertheless be necessary to exclude out of size range pieces from the sampling because of that. If in doubt, a report can give information about calculations with and without out of size range pieces so that the best option can be judged. Consideration of safety should cover, among other things, the difference in cross-section size and the proportion these pieces make up in the sampling and graded subsets. The overarching requirement for settings to be safe might also require that the size range limits are set more strictly than the standard allows (i.e. not using the full range of allowed extrapolation). See also active discussion item on the meaning of “sampled dimension”.				

TG1 RETIRED DECISIONS (archive for reference only)

No	TG1 additional requirement	Relevant contemporary Standard / clause	Date added or changed	Status	Incorporated Standard / clause
2	For both machine settings and visual grading the ‘Guidelines for sampling’ (obtainable from TG1) should be read.	EN 14081-2 2010+A1 2012 6.2.2, 6.2.3	2010/05 2016/03	Retired 2019/10	EN14081-2:2018 Annex A (for machine grading)
3	All global cost matrix values shall be rounded to two significant digits	EN 14081-2 2010+A1 2012 6.2.4.9, 6.2.5	2010/09	Retired 2019/10	EN14081-2:2018 Clause 7.1 & Annex C
4	Reports need to give moisture content values both at time of testing and time of grading.	EN 14081-2 2010+A1 2012 6.2.6 a	2012/05	Retired 2019/10	EN14081-2:2018 Clause 6.6 point a 14
5	A new machine that measures the same timber characteristics to determine its IP, and is shown to have the same IP values as an existing machine, may	EN 14081-2 2010+A1 2012 6.2	2012/05	Retired 2019/10	EN14081-2:2018 Clause 5 (note)

No	TG1 additional requirement	Relevant contemporary Standard / clause	Date added or changed	Status	Incorporated Standard / clause
	use the same approved settings provided the manufacturer of the new machine has the right to use the data.				
6	All settings and IP values shall be rounded to three significant digits.	EN 14081-2 2010+A1 2012 6.2.6b, 6.2.4.4	2012/03	Retired 2019/10	EN14081-2:2018 Clause 6.4.1
7	The machine controlled system may be used for growth areas smaller than a country. The area shall be defined in the ITT e.g. via longitudes and latitudes. This decision requires a clarification of the standard.	EN 14081-1 2005+A1 2011 5.3.2	2012/05	Retired 2019/10	EN14081-2:2018 Clause 6.1 and Clause 6.6 point c 3
8	For visual grading each sub-sample may consist of different cross sections. This decision requires a modification of the standard.	EN 384 2010 5.1, 5.3	2012/05	Retired 2017/03	EN384:2016 adapted
9	Settings for British spruce from the UK may be used to grade Irish spruce. This conclusion was based on the relation between flatwise bending MOE and edgewise MOR and is therefore only applicable for bending type machines (report TG2/1003/02).	EN 14081-2 2010+A1 2012 6.2.2	2003/10	Retired 2017/03	New approach for revision of EN14081-2
10	Settings for German spruce may be used to grade Austrian spruce. This conclusion was based on the relation between edgewise MOR and edgewise MOE and was agreed for X ray and X ray plus bending machines (report TG2/1003/03).	EN 14081-2 2010+A1 2012 6.2.2	2003/10	Retired 2017/03	New approach for revision of EN14081-2
11	Provided the grading machine uses an IP which is based on MOE (not frequency or velocity on its own), Sweden and Finland can be considered as one growth area.	EN 14081-2 2010+A1 2012 6.2.2	2010/09	Retired 2017/03	New approach for revision of EN14081-2
12	Sampling for a growth area that includes more than one country should contain at least one sub-sample from each country, unless information exists which verifies that timber from one country can be safely graded using settings from another country without being included in the sampling. This might not be consistent for different IP's so such a conclusion must be justified in the report.	EN 14081-2 2010+A1 2012 6.2.2	2012/05	Retired 2019/10	EN14081-2:2018 (new approach)
13	The ITT shall refer to the dimensions of the material where the IP and the settings are based on for each source, unless there is other justification that the dimension can be increased or decreased.	EN 14081-2 2010+A1 2012 6.2.6	2012/05	Retired 2019/10	EN14081-2:2018 Clause 6.6 point c 5
14	The effect of moisture content on the IP values when deriving settings shall be accounted for e.g. by correction of the IP values to u=12% according to EN 384.	EN 14081-2 2010+A1 2012 6.2.4.3	2012/05	Retired 2019/10)	EN14081-2:2018 Clause 6.2.3

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15	Where settings are derived for more than one country a calculation shall be made on the characteristic values for the timber from each individual country or accepted region. No value shall be lower than 90% of the required values for each strength class. Use EN 14358 for calculations of strength and density (and MOE as soon as it is included in EN 14358). This decision relates to reports submitted after 2012/05. If there is no possibility to calculate a value, the country needs to be either excluded for this strength class combination or the settings needs to be changed.	EN 14081-2 2010+A1 2012 6.2.5	2012/10	Retired 2019/10	EN14081-2:2018 (new approach)
16	For equivalence of a country check for machine and visual grading, at least 1 sub-sample from each country (only) is required. A subsample check with a factor 1.2 (equivalent as in the clause EN 384 5.4) should be applied to strength, density and stiffness for visual grading. This factor will be adjusted to be equivalent to the country check for machine strength grading (currently 90%) when the factors in EN 384 will be revised (kv, ks, …). If the check is not fulfilled, the assignment should be changed so that it is fulfilled.	EN 384 2010 5.4	2012/10	Retired 2017/03	Within EN384:2016 (new approach)
18	A minimum of 40 pieces shall be included in the sampling on all ends of the cross section thickness and width. This means that at least 40 pieces shall be in the range of 10% of the upper tested timber thickness and width and at least 40 pieces shall be in the range of 10% of the lower tested timber thickness and width.	EN 14081-2 2010+A1 2012 6.2.3 a)	2013/06	Retired 2019/10	EN14081-2:2018 Clause 6.1
19	The length of the specimens at the time of grading shall be included in the report unless data is historical and this information is not available	EN 14081-2 2010+A1 2012 6.2.6 a 8)	2013/06	Retired 2019/10	EN14081-2:2018 Clause 6.6 point a 8
25	Participation in TG1 by Skype is allowed, but it is at the participants' own risk (in case of communication problems or technical issues at either end).	General	2014/10 2015/03 2016/03	Retired 2024/04	None (TG1 operation)

Note: This record covers decisions retired since March 2016

TG1 ACTIVE DISCUSSION ITEMS

Issue	**Relevant Standard / clause**	**Date**	**Status**
Need to discuss, and formulate a decision, about when kv can and cannot be used. 2014/10: Discussion about the purpose of kv and what are the limits of when it can be applied. Agreed that the determining issue is whether or not a formal installation check (to EN14081) can be applied on the machine. If the settings do not use kv the machine can be relocated/set-up without the need for a new installation check. The intention of this is to account for the human involvement in this process and other influencing factors that apply for portable machines – and by not using kv thereby add safety. Settings calculated using the kv factor for a machine that can be moved to a different location are only valid for a permanent installation of the machine.	EN 14081-1:2016+A1:2019 EN 14081-2 2018 EN 384 2016 clause 5.5.2.1 see also minutes of TG1 2019/10 meeting, Vienna	2014/03 2018/10	Not yet fully agreed? Need discussion at WG2 in relation to EN14081-2 / EN384
Reminder to clarify the requirements of the repeatability check in the revision of EN14081-2. It is not clear what is required when there is more than one IP and when the IP can contain several different elements. Added 2016/3: To clarify, also, what else is required with regard to machine assessment that needs to be checked by TG1. Provisional list for report: the details of the repeatability check; a description of machine and its operating limits; and a description of how the IPs work, and how parameters of grading might influence them. There should be some way of specifying the machine version information for traceability of machine performance (with regard to hardware and software). Added 2023/11: If a machine IP is substantially changed, does it need a new repeatability check and/or machine installation check? What does “substantially” mean?	EN 14081-2 2018 Clause 7.1	2015/03 2016/03 2019/10 2023/11	Open
Revision of EN1912 – go through library and make a list of all outstanding assignments for circulation.	EN1912	2015/10 2019/10	Done, pending revision of EN1912
Question about visual grading rules. When visual grading rules are created, do the limits have to be related to values present in the sample tested? Or can you set limits far beyond what are present in the testing so long as the characteristic properties are met in the sample tested? This is related to cross-section size. For example for small cross-sections the visual grading	EN 384 2016	2015/10	Needs discussion

Issue	Relevant Standard / clause	Date	Status
parameters may be higher than for large cross-sections. How do we know if visual grading with small cross sections will be OK if assignment was based mostly on larger cross-sections. Visual grading requirements may appear to not be limiting…but could be limiting in different circumstances. It is not clear how we regulate for the setting of visual grading thresholds. This should be discussed in WG2.			
What to do in an EN408 test if the sample breaks outside the central span. It is more or less agreed that the action depends on the circumstances, but some guidance should be formulated. How many such breakages are acceptable? Should you be required to list them in the report? If you keep the data in the analysis, how do you calculate the strength? It would be good practice to show in a graph those failing in shear (or in the clamps in the case of tension (example in TG1/201910/29).	EN 384 2016	2013/06 2015/10 2019/10	Needs discussion (Some advice is provided in the sampling guidelines)
There is no formalised way of showing that two machines (or components of machines) perform sufficiently similarly to be regarded as "identical" – for example to allow the use of the same settings. It is not desired to create a procedure with rules – rather to have a better idea of what 'sufficiently similar' means in practice.	EN 14081-2 2018	2015/10	Needs discussion
How can areas be combined such that settings for one area can be used for another without sampling in that second area? What must be shown to justify it? Is it possible to write a general rule? This ought to be resolved within the new EN14081-2. In the meantime, the report author should present the case in the report, providing evidence – and this will be assessed on a case by case basis. Added 2019/10: Standardised areas have been implemented in EN14081-2, but there is no explanation as to how they were decided, or on what basis new standardised areas might be created.	EN 14081-2:2018	2016/03 2018/03 2019/10	Needs discussion in WG2
EN 384 refers to EN 14358 for calculation of 5th percentile strength (f_{05}) and density (r_{05}) values. The EN 14358 non-parametric method refers to a 5th percentile calculated with confidence adjustments as being a "lower confidence limit (m_k)". The 5th percentile from test data ($y_{0.5}$) is an intermediate value in the calculation. For avoidance of doubt, where EN 384 refers to the use of EN 14358 for calculation of fifth percentiles it means <u>with confidence adjustment</u> (ie the 5-percent lower tolerance limit) and not the intermediate calculated value of 5th percentile from test data. As clause 5.5.1 of EN384:2016 states, in the special case for machine control, the factor $k_{0.5,0.75}$ may be taken as zero to remove this confidence adjustment.	EN 384:2018: Clause 5.5.1 and 5.5.2.2.1 EN 14358:2018		Needs discussion in WG2

Issue	Relevant Standard / clause	Date	Status
There are no formal requirement for reports (calculations or performance level) for splitting in machine grading (when a machine is able to grade pieces of timber as if they were separate, but before the boards are physically split). A few reports have been received and approved. In the meeting of April 2021 it was discussed and it was proposed that splitting should only be allowed for machines that can measure those parts of boards separately (at least some components of the IP, and especially the IP for strength). In other words, if the IP model is based only on whole board measurements it cannot distinguish the two parts.	EN 14081-2	2021/04	Open
A note that EN14081-1 allows grading based on flatwise bending tests (clause 5.1.1) but if that was done it would not be possible to calculate (correctly) the full set of secondary properties by EN384 (because the edgewise bending strength is unknown). That might not be clear to a user of the standard.	EN384 and/or EN14081-1	2021/04	Open
The repeatability check, cost matrix and verification steps in EN14081-2 are indirect ways of checking the strength of correlation between the IPs and the grade determining properties – but what are the absolute limits? How does it depend on context? For example, a machine does not need to have a good IP for density if density is not close to being limiting in the grading – but what about the cases when density is limiting? This would vary both by resource and by strength class combination.	EN14081-2	2023/11	Open
The meaning of “sampled dimension” is open to interpretation and should be clarified. Dimensions are used for: Setting test spans and grouping specimens Calculating adjustment factors Calculating grade determining properties Calculating grading criteria Determining the range of width, thickness and cross-sectional area that machine settings can be used for Dimensions might be considered as: Nominal size, more loosely defined Target size as per EN336 Dimensions measured during the grading process, with limited accuracy Actual correctly measured size at the relevant moisture content	EN384 or EN14081-1	2024/04	Open