



STRATEGIC BUSINESS PLAN ISO/TC 327

EXECUTIVE SUMMARY

The scope of ISO TC 327 is the standardization of definitions, requirements and test methods for natural stones relating to rough blocks, slabs, semifinished and finished products intended for use in, flooring/pavement, stairs, wall veneer/cladding, countertops and other uses, for both interior and exterior applications.

This standardization includes requirements for: dimensions and tolerances, standards and test methods for physical properties, mechanical properties, petrography, performance of attachments, durability, degradation due to environmental influences, and attachment methods.

Natural Stones are products, which are uniquely specific to the quarry from which they were extracted. As such, natural stone products are routinely traded globally as the availability of a particular variety is exclusive to a particular quarry source. Additionally, the fabrication and/or other value-added refinements of the products oftentimes occurs in a country other than the country of origin or final destination. Without global standards governing the properties and usage of the product it is unclear as to which of the multiple existing standards shall govern when natural stone is traded internationally. The ambiguities as to jurisdiction of existing standards mandates that a global, consensus-based standardization be developed.

Working groups under direct control of ISO TC 327 will be established to address the specific topics of study as outlined in the committee scope.

Liaisons will be established between ISO TC 327 and other standards development groups to both increase efficiency of standards development and, to the extent possible, prevent the existence of conflicting standards within the industry.

TC 327 intends to hold two plenary meetings annually, of which one is held in virtual format and one is held in person.

1. INTRODUCTION

1.1 ISO technical committees and business planning

The extension of formal business planning to ISO Technical Committees (ISO/TCs) is an important measure, which forms part of a major review of business. The aim is to align the ISO work programme with expressed business environment needs and trends and to allow ISO/TCs to prioritize among different projects, to identify the benefits expected from the availability of International Standards, and to ensure adequate resources for projects throughout their development.

1.2 International standardization and the role of ISO



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The foremost aim of international standardization is to facilitate the exchange of goods and services through the elimination of technical barriers to trade.

Three bodies are responsible for the planning, development and adoption of International Standards: ISO (International Organization for Standardization) is responsible for all sectors excluding Electrotechnical, which is the responsibility of IEC (International Electrotechnical Committee), and most of the Telecommunications Technologies, which are largely the responsibility of ITU (International Telecommunication Union).

ISO is a legal association, the members of which are the National Standards Bodies (NSBs) of some 140 countries (organizations representing social and economic interests at the international level), supported by a Central Secretariat based in Geneva, Switzerland.

The principal deliverable of ISO is the International Standard.

An International Standard embodies the essential principles of global openness and transparency, consensus and technical coherence. These are safeguarded through its development in an ISO Technical Committee (ISO/TC), representative of all interested parties, supported by a public comment phase (the ISO Technical Enquiry). ISO and its Technical Committees are also able to offer the ISO Technical Specification (ISO/TS), the ISO Public Available Specification (ISO/PAS) and the ISO Technical Report (ISO/TR) as solutions to market needs. These ISO products represent lower levels of consensus and have therefore not the same status as an International Standard.

2. BUSINESS ENVIRONMENT OF ISO/TC 327

2.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal and social dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this ISO/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

Natural stone products are traded in raw forms such as quarry blocks, partially finished forms such as slabs, and fully finished forms, which are fully fabricated and ready for immediate installation. Recycled natural stone products may be produced from demolition of existing constructions in either their original form or a reconstituted form, which may or may not be included within the definition of natural stone or the scope of TC 327.

The ratio of costs associated with the various components of natural stone products (e.g. raw material, fabrication and/or other refinements, transportation, and installation) are unique to the particular stone product and intended application.

2.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of ISO/TC 327:



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Various countries and regions of the world are predominantly participant as suppliers to the industry, consumers of the industry, or both.

2.3 A relative breakdown of international trade volumes.

Leading economies/countries: net consumption trend (000 tons.)

COUNTRIES/ECONOMIES	1994	2001	2009	2012	2013	2014	2015	2016	2017	2018	2019
AUSTRALIA	104	131	325	429	460	473	503	520	478	494	476
AUSTRIA	296	389	442	388	409	490	478	434	455	451	477
BELGIUM	411	567	871	1.048	998	961	830	835	835	733	753
BRAZIL	779	668	2.274	2.767	3294	3230	3007	3082	2.929	3.190	3.170
CANADA	171	202	550	742	925	714	797	574	547	452	402
CHINA	2.238	3.964	11.601	19.354	22180	21704	21754	23351	26.514	27.016	28.119
FINLAND	113	184	208	151	163	157	175	179	171	157	186
FRANCE	1.103	1.415	1.410	1.728	1788	1583	1699	1597	1.631	1.476	1.754
GERMANY	1.837	2.328	1.670	1.700	1750	2065	1805	1800	1.892	1.817	1.869
GREECE	833	775	744	268	273	215	214	234	218	230	208
INDIA	983	1.997	4.459	5.656	5708	6051	7060	7712	7.532	7.576	7.550
ITALY	2.700	3.231	3.205	2.676	2425	2397	2244	2211	2.124	2.080	2.123
JAPAN	2.054	1.862	1.352	1.148	1120	1055	878	807	807	763	757
NORWAY	90	169	234	252	246	316	401	405	416	421	452
POLAND	72	262	584	729	563	585	583	581	558	545	624
PORTUGAL	314	507	632	434	366	376	414	401	391	412	403
RUSSIA	338	400	447	858	927	877	694	758	804	791	769
SINGAPORE	132	125	315	221	334	331	319	156	112	103	95
SOUTH AFRICA	62	294	275	338	302	296	272	262	256	244	256
SOUTH KOREA	767	1.371	2.585	2.401	2621	2311	2751	3384	3.744	3.673	3.154
SPAIN	1.479	2.437	2.135	1.348	1198	1279	1297	1393	1.471	1.598	1.676
TAIWAN	656	1.041	1.035	1.588	1284	1341	1214	980	785	775	780
TURKEY	221	578	1.821	1.592	1753	2026	1730	1914	1.942	1.922	1.811
USA	1.220	2.889	3.835	4.157	4715	5368	5549	5304	6.054	5.281	5.531

(Source: XXXI Rapporto Marmo e Pietre nel Mondo 2020)



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World stone use (2001=100)

COUNTRIES/ECONOMIES	2005	2012	2013	2014	2015	2016	2017	2018	2019
CHINA	158,7	488.4	559.8	547.7	548.8	589.0	668.8	681.5	709.4
BRAZIL	147.2	416.2	495.1	486.2	450.1	461.4	438.5	477.5	474.6
INDIA	149.6	283.4	286.2	303.3	353.5	386.2	377.2	379.4	378.6
UNITED KINGDOM	209.4	187.1	216.5	292.9	307.1	272.0	287.1	278.8	263.0
SOUTH KOREA	157.5	174.8	190.9	168.1	200.4	246.5	273.1	253.2	230.1
SAUDI ARABIA	94.6	194.0	271.8	247.6	277.0	262.9	236.2	206.0	210.8
USA	173.2	151.4	171.7	195.5	192.0	183.4	209.6	192.3	191.5
BELGIUM	135.2	184.8	176.2	169.5	146.4	147.4	142.2	129.5	133.0
FRANCE	110.7	122.1	126.3	111.8	120.0	113.1	115.3	104.3	124.0
SWITZERLAND	107.5	106.6	109.4	133.0	121.7	122.6	124.5	120.8	113.2
NETHERLANDS	158.8	90.5	67.1	65.9	84.7	108.2	75.3	100.0	91.8
GERMANY	75.4	73.1	75.2	88.6	77.5	77.3	81.3	78.0	80.3
PORTUGAL	114.9	85.1	72.3	74.5	81.7	78.5	77.1	81.3	79.5
TAIWAN	135.2	152.3	123.3	128.4	116.6	93.8	75.4	74.1	74.9
SPAIN	115.1	55.2	49.3	52.5	53.2	56.7	60.4	65.6	68.8
ITALY	104.2	82.8	75.1	74.3	69.5	68.5	65.7	64.4	65.6
JAPAN	99.1	61.4	60.0	56.5	47.2	43.4	43.4	41.0	40.7
GREECE	106.3	35.0	35.7	28.0	27.6	29.6	28.1	29.7	26.8
OTHERS	135.7	208.4	205.3	234.8	243.2	247.9	255.3	266.7	261.5
WORLD	131.1	190.0	200.1	210,0	215.4	223.1	233.8	235.4	237.5

(Source: XXXI Rapporto Marmo e Pietre nel Mondo 2020)



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World stone use per capita (sq.mt./2 x 1000 inh.)

COUNTRIES/ECONOMIES	2001	2011	2012	2013	2014	2015	2016	2017	2018	2019
SWITZERLAND	1.493	1.585	1.518	1.558	1.894	1.733	1.746	1.773	1.719	1.612
SAUDI ARABIA	779	871	1.233	1.727	1573	1.770	1.680	1.510	1.317	1.338
BELGIUM	1.029	2.102	1.862	1.775	1.708	1.475	1.485	1.485	1.303	1.332
SOUTH KOREA	556	1.098	928	1.013	892	1.063	1.307	1.446	1.340	1.219
PORTUGAL	938	943	840	714	735	806	775	756	798	788
ITALY	1.040	985	852	875	865	810	798	767	751	766
SPAIN	1.147	757	578	516	551	558	595	628	683	715
TAIWAN	891	1.205	1.283	1.040	1.084	984	792	635	626	630
FRANCE	447	489	529	547	485	521	491	501	453	538
NETHERLANDS	543	340	485	360	354	455	581	405	538	504
UN. KINGDOM	144	322	308	356	481	504	525	471	458	462
GERMANY	525	450	381	392	462	405	404	425	408	420
CHINA	60	227	265	304	298	300	322	365	372	387
GREECE	1.367	702	450	459	360	355	382	357	374	339
USA	190	230	238	270	307	318	304	347	303	318
BRAZIL	78	267	275	327	321	297	304	290	316	314
INDIA	38	86	113	115	122	147	161	157	158	156
JAPAN	273	159	166	162	153	128	118	118	112	111
OTHERS	72	140	154	152	174	180	184	181	189	185
WORLD	117	202	215	226	237	243	252	264	266	268

(Source: XXXI Rapporto Marmo e Pietre nel Mondo 2020)

3. BENEFITS EXPECTED FROM THE WORK OF ISO/TC 327

Stakeholders, current and future, of the standards authored by this committee include actively engaged members of the natural stone industry such as quarriers, fabricators, brokers, and installers of natural



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products in addition to those providing ancillary products and services such as architectural and engineering design, anchoring [fixing] hardware, sealers, and machinery.

Experts from the countries worldwide interested in the work of ISO/TC 327 bring the best knowledge and capability to assemble the technical information and requirements of every aspect of the committee's scope. These standards will assure the reliability of the natural stone products to their customers.

Through these works, the TC contributes to the business of the natural stone industry in such ways as to promote its wide acceptance in various applications, to provide countries with objectives, guides and targets in its adoption, and to save expenses and minimize disputes by the adoption of a global standardization body.

Examples of the above-mentioned benefits are as follows:

1. Multiple testing by different standards should be eliminated by adoption of a global platform for natural stone testing.
2. Existing national or regional standards will be incorporated or cited in the works of TC 327 to prevent conflict of multiple governing standards.
3. Failures of stone installations will be reduced by comprehensive testing regimens, which are globally uniform.
4. Safety will be increased throughout the industry by adoption of uniform standards for personal protection in the workplace.
5. International trade will be enhanced by having consistent nomenclature and commerce practices.

4. REPRESENTATION AND PARTICIPATION IN ISO/TC 327

Countries/ISO member bodies that are P and O members of the ISO committee

4.2 Analysis of the participation

Major players in the TC are summarized from the aspect of member bodies in the Table below:

Membership of ISO/TC 327 by Regional Distribution		
Region	Participating Members ⁽¹³⁾	Observing Members ⁽⁹⁾
Europe	Belgium Finland France Germany Italy Russian Federation Spain	Austria Cyprus Norway Portugal Slovakia Switzerland



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	Sweden United Kingdom	
North/South America	Brazil Colombia United States	
Asia/Oceania	India	Australia Japan
Middle East		Iran, Islamic Republic of
Africa		

International liaison relationships with ISO/TC 327 will be established within the first three years of committee activity where appropriate.

5. OBJECTIVES OF ISO/TC 327 AND STRATEGIES FOR THEIR ACHIEVEMENT

5.1 *Defined objectives of the ISO/TC 327*

ISO/TC 327 should prepare a package of standards necessary to address uniform practices in the extraction, fabrication, Transport, fixing, and maintenance/restoration of natural stone products. Such standards shall be, to the extent possible, nonconflicting with existing standards from current authoring bodies and programs.

It is intended that the standards developed by the committee will also address the requirements of peripheral products, including but not limited to mechanical fasteners, shims, sealers, and mortars.

5.2 *Identified strategies to achieve ISO/TC 327's defined objectives*

The initial focus of ISO/TC 327 will be to compile a registry of existing standards to prevent, to the extent possible, the development of standards that conflict with the existing. Two primary authoring bodies of existing standards are the CEN (TC 246 – Natural stones and TC 178 Paving units and kerbs) and the ASTM (Committee C18 on Dimension Stone and Committee D18 on Soil and Rock), with the addition of a variety of standards associations throughout the world.

Secondary focuses include the standardization of terminology and the study of accelerated means of assessing durability of natural stones.

The structure of ISO/TC 327 should be used with flexibility, allowing the variety of its working groups to pursue a broad spectrum of interests.

6. FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE ISO/TC 327 WORK PROGRAMME



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Travel restrictions due to the current global health crisis have delayed the realization of in-person meetings.

The stakeholders of ISO/TC 327 must realize the necessity and benefits of standardizing the practices within the natural stone industry and be committed to the implementation of such standardization.

Validation of some test methods will require funding for round-robin and similar parallel testing programs and such funding has not been secured.

Domestic trade within a given country may reject the adoption of global ISO standardization as being unnecessary as existing standards within that country already govern their trade practices.

7. STRUCTURE, CURRENT PROJECTS AND PUBLICATIONS OF THE ISO/TC

This section gives an overview of the ISO/TC's structure, scope, projects and publications. All of this information is updated regularly and is available on ISO's website, ISO Online.

The link below is to the TC's page on ISO's website:

ISO TC 327 on ISO Online

Click on the tabs and links on this page to find the following information:

- About (Secretariat, Secretary, Chair, Date of creation, Scope, etc.)
- Contact details
- Structure (working groups)
- Liaisons
- Meetings
- Tools
- Work programme (published standards and standards under development)

Reference information

Glossary of terms and abbreviations used in ISO/TC Business Plans

General information on the principles of ISO's technical work