

SM QUARTZ® - SM MARBLE® SYNOPTIC CHART OF THE ADHESIVES FOR INTERIOR INSTALLATION

ATTENTION! The content of this recommendation is based on our experience. Although we strive for thoroughness and accuracy of the information we provide, this is not a warranty and we can't take any responsibility for the exactness and applicability of this document.

The result of a good installation depends on the correct execution of all phases of the process: substrate preparation, screed, adhesive, expansion joints, joints, and quality of the tiles.

The designer must carefully write the specification, including the installation process, the materials to be used, the joints' width, the structural, expansion, perimeter joints, etc. While choosing the most suitable adhesive and its application process, we suggest to follow the recommendation of the adhesive's manufacturer.

The choice of the adhesive depends on the final use of the building and the material to be installed.

The information provided with this document is intended as a general guideline, and does not replace the opinion of professional installers, who can also evaluate jobsite conditions.

For more information about the installation procedure, please refer to "Installation" of Santamargherita products.

CLASSIFICATION OF ADHESIVES

The European classification of adhesives allows to categorize them in terms of application and adhesive's technical characteristics.

The UNI EN 12004:2012 Standard describes and determines the technical characteristics of the adhesives for flooring and wall cladding.

The Standard divides up adhesives into 3 types:

- C → cementitious adhesive
- D → dispersion adhesive
- R → reaction resin adhesive

In addition to that, every adhesive is divided up into subcategories, based on its technical characteristics. There are 2 basic and 5 optional subcategories:

- Basic subcategory 1 → normal adhesive
- Basic subcategory 2 → improved adhesive
- Optional subcategory F → fast setting adhesive
- Optional subcategory T → slip resistant adhesive
- Optional subcategory E → extended open time adhesive
- Optional subcategory S1 → deformable adhesive
- Optional subcategory S2 → highly deformable adhesive

Basic subcategories 1 and 2 can be combined with every adhesive type.

E.g.: C2 F S2 means improved cementitious (C2) fast setting (F) highly deformable (S2) adhesive.

MINIMUM TECHNICAL REQUIREMENT FOR INDOOR INSTALLATION

SUPPORT TYPE	CLASS 1 All SM QUARTZ® products			CLASS 2 SM MARBLE® with granulometry < 10 mm			CLASS 3 SM MARBLE® with granulometry > 10 mm		
	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	> 0,20 m ²	> 0,36 m ²
	Cementitious screed	C2 S1	C2 S1	C2 S2	C2 S1	C2 S1	C2 S2	C2	C2 S1
Gypsum underlayment <small>(always use appropriate primer)</small>	C2 S1	C2 S1	C2 S2	C2 S1	C2 S1	C2 S2	C2	C2 S1	C2 S1
Radiant heated floors	C2 S1	C2 S2	R2	C2 S1	C2 S2	C2 S2	C2 S1	C2 S1	C2 S2
Metallic surface	R2	R2	R2	R2	R2	R2	R2	R2	R2
Existing stone or ceramic floor	C2 S1	C2 S1	C2 S2	C2 S1	C2 S1	C2 S2	C2	C2 S1	C2 S1

The chart reports the classification according to the chemical composition and deformability of the adhesives only. The other characteristics (T, E and F) are to be considered based on application and temperature. Whenever possible, use fast setting adhesives (F).

SM MARBLE® Verde Liguria and Rosso Levante must always be installed with fast setting adhesives class C2 F S1/S2 or R2.

When installing on surfaces, that are subject to significant range of temperature, always use adhesives class R2.

Attention: The above chart is intended as a guideline to choose the right adhesive. It is not binding and may differ from other manufacturers' recommendation.

MAPEI ADHESIVES SUGGESTED FOR INDOOR INSTALLATION (EUROPEAN MARKET)

SUPPORT TYPE	CLASS 1			CLASS 2			CLASS 3		
	All SM QUARTZ® products			SM MARBLE® with granulometry < 10 mm			SM MARBLE® with granulometry > 10 mm		
	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²
Cementitious screed	C2 F S1 GRANIRAPID	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2 F S1 GRANIRAPID	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2F KERAQUICK	C2 F S1 GRANIRAPID	C2 F S1 GRANIRAPID
	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S1 KERABOND + ISOLASTIC (50%)
Gypsum underlayment (always use Primer G)	C2 FS1 GRANIRAPID	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2 FS1 GRANIRAPID	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2F KERAQUICK	C2 FS1 GRANIRAPID	C2 FS1 GRANIRAPID
	C2 TE S1 KERAFLEX MAXI S1	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S1 KERABOND + ISOLASTIC (50%)
Radiant heated floors	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	R2 KERALASTIC	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID
	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC		C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC		C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID
	R2 KERALASTIC	R2 KERALASTIC		R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC		R2 KERALASTIC	
Metallic surface	R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC	R2 KERALASTIC
Existing stone or ceramic floor	C2 FS1 GRANIRAPID	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2 FS1 GRANIRAPID	C2 FE S2 ELASTORAPID	C2 FE S2 ELASTORAPID	C2F KERAQUICK	C2 FS1 GRANIRAPID	C2 FS1 GRANIRAPID
	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S2 KERABOND + ISOLASTIC	C2 E S2 KERABOND + ISOLASTIC	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S1 KERABOND + ISOLASTIC (50%)	C2 E S1 KERABOND + ISOLASTIC (50%)

While filling out the chart, the thixotropy of the adhesives (T) has not been considered.

SM MARBLE® Verde Liguria and Rosso Levante are always to be installed with fast setting adhesive GRANIRAPID o KERALASTIC.

NB: The adhesives are indicated by trade names for the European market.

WEBER ADHESIVES SUGGESTED FOR INDOOR INSTALLATION

SUPPORT TYPE	CLASS 1 All SM QUARTZ® products			CLASS 2 SM MARBLE® with granulometry < 10 mm			CLASS 3 SM MARBLE® with granulometry > 10 mm		
	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²
	Cementitious screed	C2TES1 weber.col pro HP	C2TES1 weber.col pro HP	C2TES1 weber.col pro HP	C2TES1 weber.col pro HP	C2TES1 weber.col pro HP	C2TES1 weber.col pro HP	C2TES1 weber.col pro HP	C2TES1 weber.col pro HP
Gypsum underlayment (always use weber.prim PF15)	C2 FT weber.col pro marmo/weber.col pro rapid	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FT weber.col pro marmo/weber.col pro rapid	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FT weber.col pro marmo/weber.col pro rapid	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50
Radiant heated floors	C2TES1 weber.col pro HP	C2 TES2 weber.col pro HP+weber L50	C2 TES2 weber.col pro HP+weber L50	C2TES1 weber.col pro HP	C2 TES2 weber.col pro HP+weber L50	C2 TES2 weber.col pro HP+weber L50	C2TES1 weber.col pro HP	C2 TES2 weber.col pro HP+weber L50	C2 TES2 weber.col pro HP+weber L50
Metallic surface	R2 weber.col fix CR	R2 weber.col fix CR	R2 weber.col fix CR	R2 weber.col fix CR	R2 weber.col fix CR	R2 weber.col fix CR	R2 weber.col fix CR	R2 weber.col fix CR	R2 weber.col fix CR
Existing stone or ceramic floor	C2TES1 weber.col pro HP	C2 TES2 weber.col pro HP+weber L50	C2 TES2 weber.col pro HP+weber L50	C2TES1 weber.col pro HP	C2 TES2 weber.col pro HP+weber L50	C2 TES2 weber.col pro HP+weber L50	C2TES1 weber.col pro HP	C2 TES2 weber.col pro HP+weber L50	C2 TES2 weber.col pro HP+weber L50
	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50	C2 FTS1 weber.col pro marmo/weber.col pro rapid +weberL50
			R2 weber.col fix CR			R2 weber.col fix CR			R2 weber.col fix CR

SM MARBLE® Verde Liguria and Rosso Levante are to be installed with fast setting adhesive weber.col pro rapid (add weber L50 if necessary) or weber.col fix CR. When installing on surfaces subject to significant temperature range, use weber.col fix CR.

KEDIL ADHESIVES SUGGESTED FOR INDOOR INSTALLATION

SUPPORT TYPE	CLASS 1 All SM QUARTZ® products			CLASS 2 SM MARBLE® with granulometry < 10 mm			CLASS 3 SM MARBLE® with granulometry > 10 mm		
	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	> 0,20 m ²	> 0,36 m ²
	Cementitious screed	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT KEDILSTONE	C2 FT KEDILSTONE
C2 TE S2 SUPER 120		C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120		
Gypsum underlayment (always use APREX G primer)	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT KEDILSTONE	C2 FT KEDILSTONE	C2 FT S2 SUPER 24
	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120			C2 TE S2 SUPER 120
Radiant heated floors	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	R2 ADHESION	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24
	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120		C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120
Metallic surface	R2 ADHESION	R2 ADHESION	R2 ADHESION	R2 ADHESION	R2 ADHESION	R2 ADHESION	R2 ADHESION	R2 ADHESION	R2 ADHESION
Existing stone or ceramic floor	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24	C2 FT KEDILSTONE	C2 FT S2 SUPER 24	C2 FT S2 SUPER 24
	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120	C2 TE S2 SUPER 120			C2 TE S2 SUPER 120

SM MARBLE® Verde Liguria and Rosso Levanto are to be installed with fast setting adhesive SUPER 24 (or ADHESION).
When installing on surfaces subject to significant temperature range, use ADHESION.

ARDEX ADHESIVES SUGGESTED FOR INDOOR INSTALLATION

SUPPORT TYPE	CLASS 1			CLASS 2			CLASS 3		
	All SM QUARTZ® products			SM MARBLE® with granulometry < 10 mm			SM MARBLE® with granulometry > 10 mm		
	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	0,20 - 0,36 m ²	> 0,36 m ²	< 0,20 m ²	> 0,20 m ²	> 0,36 m ²
Cementitious screed	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1
Gypsum underlayment (always use appropriate primer)	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1
Radiant heated floors	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	R2 T ARDEX WA™	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2
Metallic surface	R2 T ARDEX WA™	R2 T ARDEX WA™	R2 T ARDEX WA™	R2 T ARDEX WA™	R2 T ARDEX WA™	R2 T ARDEX WA™	R2 T ARDEX WA™	R2 T ARDEX WA™	R2 T ARDEX WA™
Existing stone or ceramic floor	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E S2 ARDEX X 77™ E 90™ Mortar Admix or ARDEX N 23™ E 90™ Mortar Admix C2 FTE S2	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1	C2 FT(T)E(E) S1 ARDEX X 77™ or ARDEX N 23™ C2 FTE S1

The chart reports the classification according to the chemical composition and deformability of the adhesives only. The other characteristics (T, E and F) are to be considered based on application and temperature. Whenever possible, use fast setting adhesives (F).

SM MARBLE® Verde Liguria and Rosso Levante must always be installed with fast setting adhesives class C2 F S1/S2 or R2.

When installing on surfaces, that are subject to significant range of temperature, always use adhesives class R2 (ARDEX WA™).