

3.5 ABRASION RESISTANCE (PEI)

Recommended use of glazed tiles according to the class of abrasion resistance:

Class PEI 1	Designed for floors unlikely to be scratched for soft sole use, e.g. bathrooms, bedrooms and toilets in apartments, as well as tiled swimming pools and walls.
Class PEI 2	Designed for floors occasionally exposed to risk of scratching and regular shoes, e.g. living areas, except for entrance and similar areas.
Class PEI 3	Designed for floors exposed to frequent pollution, e.g. in apartments and family houses, corridors, except entry areas. It is designed for entrance halls, enclosed balconies, balconies, offices, home kitchens, hotel rooms, sanitation and therapeutic rooms in hospitals.
Class PEI 4	Designed for busy foot traffic and stronger pollution, e.g. interiors of administrative buildings, hotel corridors, business rooms, and offices.
Class PEI 5	Designed for floors highly exposed to abrasion and pollution, e.g. shops, restaurants, and hotel staircases, shopping centres, airport and passenger halls.

3.6 SLIP RESISTANCE OF FLOORS



Slip angle Identification Use

6–10°	R9 Interior and relaxation surfaces, canteens, corridors of official buildings, schools and hospitals (Public use)
10 – 19°	R10 Warehouses, small kitchens, sanitary premises
19 – 27°	R11 School kitchens , washing lines, laundries, entrance areas, outdoor stairs
27 – 35°	R12 Large kitchens, working pits, dairies
Over 35°	R13 Fat refineries, leather works, and slaughter houses

For floors for barefoot walking, according to CEN/TS 16 165:2012, EN 13451-1,

DIN 51 097, GUV 26.18 and CSN 725191, following fields of application:



Slip angle Identification Use

>12° A	A Mainly dry corridors for barefoot walking, changing rooms, bottoms of pools from 80 to 135 cm
>18° B	Public showers, pool decks, paddling pools, stairs, bottoms of pools up to 80 cm
>24° C	Underwater stairs, inclined pool sides, starting blocks, inclined bottoms of pools

3.7 CHEMICAL PROPERTIES

Chemical properties, defining resistance of tiles against staining, exposure to household chemicals. Pool chemicals and strong acids and alkali, are other important aspects in selection of suitable tiles by architects or customers. Methods for determination of chemical resistance are described in EN ISO 10545-13, and the method for determination of resistance to staining is described in EN ISO 10545-14.



Resistance classes

Class 1	Stains cannot be removed
Class 2	Stains can be removed by long term application of cleaning agents
Class 3	Stains can be removed with strong concentrated cleaning agents
Class 4	Stains can be removed with weak concentrated cleaning agents
Class 5	Stains can be removed with running water

3.8 FROST RESISTENT



Frost resistant products.

3.9 RECTIFIED TILES

 Sawn edges, allow grout 2 mm

For more technical information, email info@hillnaturalstone.com