



Adhesive and waterproofing at once

ATLAS PLUS S2 HYDRO can be applied in three forms:

- as an adhesive for tiles,
- as an adhesive and waterproofing coat in one technological cycle,
- as a waterproofing coat.

Three technologies are used in the recipe of ATLAS PLUS S2 HYDRO adhesive: POLYMER TECHNOLOGY, DOUBLE FIBERS TECHNOLOGY and TECHNOLOGY OF MODIFIED RUBBER ELASTOMER FILLERS.

Owing to high content of polymer compounds, fibres and modified rubber fillers, the adhesive obtains unique properties and offers the highest technical and operational properties and long-term durability.

Polymer technology

The presence of polymers ensures great bonding between cladding and substrate of any type, also so called difficult and critical ones. Owing to the interchange of the polymer network with the network of inorganic hydration cement bindings, the adhesive offers outstanding parameters.

The use of the POLYMER TECHNOLOGY in ATLAS PLUS S2 HYDRO brings the following advantages:

- durable and strong bonding between cladding and difficult and non-absorbable substrates,
- possibility of use on substrates exposed to high deformation and vibration,
- high resistance to extreme operational loads – mechanical and thermal,
- excellent bonding to cladding of any type,
- safe use with tiles of any size, also with tiles up to 5 m² large,
- perfect workability and rheology.

Double fibers technology

ATLAS DOUBLE FIBRES TECHNOLOGY is based on a mix of polypropylene and cellulose fibres.

The polypropylene fibres used in this technology are materials characterised by high chemical resistance to acids, bases, solvents or salt action. They are hydrophobic, almost non-absorbable, therefore resistant to microbiological corrosion. The fibres improve mechanical performance of the mortar as they form diffused reinforcing within the mortar structure. The cellulose fibres get elastic and ductile under water action. They increase their volume and enable free transport of water along fibres, thus significantly influence the mortar workability – improve mortars rheology, reduce slip, extend open time and increase the substrate wettability. Cellulose fibres prevent too quick water retention by the substrate, therefore set ATLAS PLUS S2 HYDRO gets the best technical performance, such as bonding to the substrate and strength.

ATLAS PLUS S2 HYDRO

highly deformable adhesive with function of waterproofing

- for ceramic, porcelain-gres tiles, graphite sinters, “slim” cladding, natural stone, composite panels
- for terraces, balconies, façades, bathrooms, linear drains, kitchens
- for critical substrates e.g. metal, OSB boards, old tiles, floor heating, waterproofing coats
- one product – complex solution: 2 in 1 – S₂ class adhesive and waterproofing coat
- application in one technological cycle
- cracks bridging up to 0.8 mm
- possible application in combination with terrace profiles and sealing tapes



DOUBLE FIBERS TECHNOLOGY in ATLAS PLUS S2 HYDRO brings the following benefits:

- increase of strength parameters,
- significant increase of resistance to the effects of high operational loads as well as impact loads and vibrations,
- safe fixing at large temperature differences,
- compensation of tension arising on deformable substrates,
- improvement of water retention in the adhesive mortar: fibres limit results of rapid water absorption, also in combination with absorbable substrate and absorbable tile and in evaporation area; during setting and drying of the adhesive mortar (especially applied with maximum thickness), fibres are accumulating and transporting water, maintaining its unified level within the whole layer,
- reduction of the effect of tile ‘pulling’,
- significant improvement of workability,
- increase the tiles stability immediately after bonding to the substrate.

Technology of modified rubber elastomer fillers

TECHNOLOGY OF MODIFIED RUBBER ELASTOMER FILLERS in ATLAS PLUS S2 HYDRO brings the following benefits:

- quick and easy application,
- perfect rheology and workability,
- high deformability,
- possibility of application on substrates exposed to high operational loads – mechanical and thermal, deformations and vibrations,
- compensation of thermal tensions even on large-size dark tiles applied on terraces and façades.

Properties

ATLAS PLUS S2 HYDRO is manufactured as a dry mix of high quality cement binder, aggregates and special composition of modifiers.

Highly flexible – deformability of S2 class (test according to the PN-EN 12002 standard).

Three times greater initial bonding, i.e. $\geq 1.5 \text{ N/mm}^2$.

Range of adhesive thickness (2-10 mm) enables:

- thin-coat cladding fixing on even substrates,
- thin-coat cladding fixing on uneven substrates, preceded by the substrate floating.

Extended open time - allows placing tiles on the adhesive even 30 minutes since application upon the substrate – the mortar can be once applied onto larger surface which significantly reduces the time of application.

Reduced slip - enables fixing cladding “from top to bottom” – proper consistency and layer thickness eliminate the adhesive slip. Therefore one can tile from the wall top and avoid cut-to-size tiles on exposed wall zones.

Versatility of use – the adhesive is designed for almost any cladding type, regardless the tile size (even above 5m²), on various substrates, in any building type, even with high operational loads.

TYPE OF FIXED CLADDING	
glazed tiles	+
terracotta	+
porcelain-gres tiles	+
laminated gres	+
natural stone cladding (granite, marble, travertine, syenite, slate, etc.)	application test required
clinker	+
stoneware	+
ceramic mosaic	+
glass mosaic	application test required
glass, coloured, printed tiles, etc.	application test required* and follow the tiles manufacturer's guidelines
concrete/ cement tiles	+
composite panels	+
insulation and acoustic panels	+

*application test description available in the Important additional information section

SIZE OF FIXED ELEMENTS	
any tile size, even above 5 m ²	+
slim-type tiles	+

OBJECT TYPE	
residential housing	+
public access, educational, office, healthcare buildings	+
commercial and service buildings	+
sacral buildings	+
industrial construction and multi-storey garages	+
industrial warehouses	+
infrastructure	+
SPA objects	+

APPLICATION AREA TYPE	
rooms of low traffic	+
rooms of moderate traffic	+
rooms of heavy traffic	+
kitchen, bathroom, laundry, garage (individual housing)	+
terraces	+
balconies, loggia	+
external slab stairs	+
external beam stairs, e.g. bracket stairs	+
communication routes	+
façades (incl. external thermal insulation systems)	+
plinth cladding	+
technological tanks, pools, fountains, jacuzzi, balneotechnology (with no aggressive chemicals in use)	+
sauna	+
showers, washes, rooms washed with plenty of water	+

AREA OF WATERPROOFING COAT APPLICATION	
terraces	+
balconies, loggia	+
outdoor stairs	+

SUBSTRATE TYPE - standard	
cement screeds and floors	+
anhydrite screeds	+
cement, cement-lime plasters	+
gypsum plasters in dry zones of rooms	+
gypsum plasters in damp and wet zones of rooms	+
walls made of cellular concrete	+
walls made of silicate brick or hollow blocks	+
walls made of ceramic brick or hollow blocks	+
walls made of gypsum blocks	+

SUBSTRATE TYPE - difficult	
concrete	+
terrazzo	+
mineral, dispersion and reactive sealing coats	+
dry substrates made of plasterboards	+
screeds (cement and anhydrite) with embedded water and electric heating system	+
screeds with heating mats embedded in adhesive	+
plasters with wall heating system	+
plasterboards	+
gypsum-fibre boards	+
cement-fibre boards	+
existing ceramic and stone cladding ("tile on tile")	+
concrete resin lacquers bonded to the substrate	+
dispersion, oil paints bonded to the substrate	+
timber floors (thick. > 25 mm)	+
OSB/3 and OSB/4 and chipboards on floors (thick. > 25 mm)	+
OSB/3 and OSB/4 and chipboards on walls (thick. > 18 mm)	+
metal and steel surfaces	+
plastic surfaces	+

Technical data

Bulk density	approx. 1,1 g/cm ³
Mixing ratio (water/dry mix)	0,34 ÷ 0,41 l / 1 kg 5,10 ÷ 6,15 l / 15 kg
- waterproofing coat + adhesive for tiles	0,37 ÷ 0,41 l / 1 kg 5,55 ÷ 6,15 l / 15 kg
- adhesive for tiles	0,34 ÷ 0,37 l / 1 kg 5,10 ÷ 5,55 l / 15 kg
Min./max. adhesive thickness: - waterproofing coat + adhesive for tiles - adhesive for tiles - waterproofing coat	5 mm / 10 mm 2 mm / 10 mm 5 mm
Adhesive preparation temperature, substrate and ambient temperature during application	from +5 °C up to +25 °C
Maturing time	approx. 5 minutes
Pot life*	approx. 2 h
Open time*	min. 30 minutes
Adjustability*	approx. 10 minutes
Grouting wall/floor cladding*	after approx. 24 h
Foot traffic*	after approx. 24 h
Early resistance to rain for waterpro- ofing applied in two technological cycle**	after approx. 24 h
Full operation load – foot traffic*	after 3 days
Full operation load – vehicle traffic*	after 14 days
Full load under water – pool/tank*	after 14 days
Floor heating (heated surfaces)*	after 21 days

* The time shown in the table is recommended for application at the temperature 23°C and humidity 55%.

** see section: Cladding installation.

Technical requirements

The product conforms to the PN-EN 12004 + A1:2012 and PN-EN 14891:2012 (EN 14891:2012) standards.

EC Declaration of Performance No. 228/CPR.

 0767, 1614, 1301	PN-EN 12004+A1:2012 (EN 12004:2007+A1:2012) PN-EN 14891:2012 (EN 14891:2012)
Cement adhesive for tiles of enhanced parameters, reduced slip, extended open time, highly deformable C2TE S2 type for indoor and outdoor use, on walls and floors.	
Reaction to fire – class	B-s1, d0 B _{fl} -s1
Release/content of hazardous substances	See: Safety Data Sheet
Bonding strength defined by initial bonding	≥ 1,0 N/mm ²
Bonding strength in condition of seasoning/thermal ageing defined by bonding after thermal ageing	≥ 1,0 N/mm ²
Bonding strength in condition of water/humidity action defined by bonding after immersion in water	≥ 1,0 N/mm ²
Bonding strength in condition of freeze-thaw cycles defined by bonding after freeze-thaw cycles	≥ 1,0 N/mm ²
Polymer modified cement waterproofing product for use in liquid form, resistant to chlorinated water (CM P), for outdoor use and in swimming pools under ceramic tiles fixed with adhesives.	
Initial bonding	≥ 0,5 N/mm ²
Water tightness	no penetration
Cracks bridging ability in standard conditions	≥ 0,75 mm
Durability of initial bonding to climate impact/thermal ageing: • Bonding after thermal ageing	≥ 0,5 N/mm ²
Durability of initial bonding to exposure to water/humidity: • bonding after exposure to water	≥ 0,5 N/mm ²
Durability of initial bonding to exposure to lime water: • bonding after exposure to lime water	≥ 0,5 N/mm ²
Durability of initial bonding to exposure to freeze-thaw cycles: • bonding after exposure to freeze-thaw cycles	≥ 0,5 N/mm ²
Release/content of hazardous substances	See: Safety Data Sheet

The product has been given the Hygienic Attest and the Radiation Hygiene Certificate.

Substrate preparation

The substrate should be:

- **stable** – sufficiently sound, resistant to deformation, free from materials which would impair bonding, stabilized.
- **even** – maximum adhesive thickness is 10 mm, in case of larger irregularities use ATLAS ZW 330 or ATLAS ZW 50 levelling mortars or ATLAS SMS, SAM or POSTAR screeds.
- **clean** – free from layers which would impair adhesive bonding, especially dust, dirt, lime, oils, greases, wax, residues of oil and emulsion paints; substrate coated with algae, fungi, etc. must be cleaned and protected with ATLAS MYKOS agent.
- **primed:**
 - with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT PLUS – substrates of excessive or heterogenous absorptiveness,
 - with ATLAS GRUNTO-PLAST – if the substrate absorptivity is poor or it is coated with layers limiting bonding,
 - with ATLAS ULTRAGRUNT – while adhesive will be applied on critical substrates.

Detailed guidelines concerning the substrate preparation, depending on its type.

SUBSTRATE TYPE	PREPARATION
Freshly applied cement screeds ATLAS POSTAR 80, ATLAS SMS 15 or ATLAS SMS 30	Stabilized min. 24 hours; optimum moisture content < 4% by weight.
Freshly applied cement screeds ATLAS POSTAR 20	Stabilized min. 2 days; optimum moisture content < 4% by weight.
Other cement screeds	Stabilized min. 28 days; optimum moisture content < 4% by weight. Prime with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT PLUS.
Anhydrite screeds ATLAS SAM 100, ATLAS SAM 150, ATLAS SAM 200 or ATLAS SAM 500	Stabilized min. 2-3 weeks; optimum moisture content < 0.5% by weight. Prime with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT PLUS. If, white surface tarnish forms during screed drying, it should be removed mechanically (grinded) and the surface dedusted. Screed grinding accelerates the process of drying.
Cement and anhydrite screeds on floor heating	Appropriately heated and primed with ATLAS UNI-GRUNT or ATLAS UNI-GRUNT PLUS
Terrazzo	De-grease the surface thoroughly, in case of waxed terrazzo remove the top layer or whole layer and execute a new one. Prime with ATLAS ULTRAGRUNT.
Walls made of silicate or ceramic bricks and hollow blocks, cellular concrete	Levelling coat required (plaster). Direct fixing onto rough wall is possible in case of appropriate substrate dimensional tolerance. In such case it is necessary to execute full joint wall (or re-fill the joints) and repair any gaps or irregularities with ready-to-use mortars. Prime with ATLAS UNI-GRUNT.
Cement and cement-lime plasters made of ready ATLAS mortars	Stabilized min. 3 days* for each 10 mm of thickness; optimum moisture content < 4% by weight.
Other cement and cement-lime plasters	Stabilized min. 7 days*. Prime with ATLAS UNI-GRUNT.
Gypsum plasters	Prime with ATLAS UNI-GRUNT. If gypsum plaster is applied in a wet room it should be thoroughly protected against moisture. If dampness has form of short term action or moderate water splash, then the plaster should be coated with a preparation improving resistance against damp penetration, e.g. ATLAS GRUNTO-PLAST.
Substrates levelled with ATLAS ZW 330 mortar	Stabilized min. 5 h for layer thickness 5 mm. Stabilized min. 10 h for layer thickness 10 mm. Stabilized min. 20 h for layer thickness 20 mm. Stabilized min. 48 h for layer thickness above 20 mm.
Concrete	Stabilized min. 21 days; optimum moisture content < 4% by weight. Remove residues of formwork oils and other substances which would impair adhesion. Prime with ATLAS ULTRAGRUNT. Holes, cracks and other gaps should be filled with ATLAS TEN-10 or ATLAS ZW 330 mortars.
Concrete reservoirs for drinking water, technological tanks, pool basins, made of watertight concrete	Grinding, sanding or wet sanding required in order to open the surface pores.
Water reservoirs, pool basins, wading pools, etc., surfaces waterproofed with elastic mortars or liquid foils	If required, clean the waterproofing coat delicately, so the coat is not damaged.
Oil paints and resin lacquers coatings	Coatings of poor bonding to the substrate should be mechanically removed. Stable, well bonded coatings: grind, dust; prime oil coatings with ATLAS ULTRAGRUNT. Remove any gypsum fillers used for substrate evening.
OSB boards and wooden floors – the layer composition should be designed and executed in the way excluding the possibility of deformation which may lead to the cladding damage.	- check the boards type, on floors one may use boards OSB/3 and OSB/4 (acc. to PN-EN 300:2007), min. 25 mm thick, on walls – min. 18 mm thick, - check the superstructure stability, boards must not move under operation load; fix additional, stiffening boards layer, if needed, - matt the surface with 40-60 sand paper, - dedust the surface.
Existing ceramic or stone tiles	- check bonding to the substrate of the existing cladding by tapping; individual loosening tiles must be removed, - clean and de-grease the existing tiles surface, - matt glazed tiles with a diamond grinder, - dedust the surface - prime with ATLAS ULTRAGRUNT
Metal and steel surfaces	Cleaning and rust removal required, prime with ATLAS ULTRAGRUNT.
Plastic surfaces	Cleaning, grinding and priming with ATLAS ULTRAGRUNT required. Perform the bonding test prior to the cladding fixing in order to confirm the plastic substrate binding ability.

*) The time shown in the table is recommended for application at the temperature 20°C and humidity 50%.

Cladding installation

Adhesive preparation

Pour adhesive from a bag into a container with suitable amount of water (see Technical Data for ratio) and mix using a low speed mixer with a drill for mortars until homogenous. The dispersed adhesive should be left to rest for 5 minutes and remixed then after. So prepared adhesive should be used up within approx. 2 hours.

Application of waterproofing coat and tiles fixing in one technological cycle:

STEP 1: Application of ATLAS SEALING TAPES, CORNERS and RINGS or ATLAS HYDROBAND 3G. Apply a contact coat on the area of application of accessories by rubbing ATLAS PLUS S2 HYDRO into a moistened substrate with a sharp trowel edge or a brush for sludging. Then apply adhesive with a notched trowel of notch size 4. Excessive adhesive should be pressed out with a sharp edge of a trowel.

STEP 2: Installation of ATLAS eaves profiles for balconies and terraces. Installation should be carried out in compliance with the Technical Data Sheets of profiles, with waterproofing layer made of ATLAS PLUS S2 HYDRO.

STEP 3: Application of the waterproofing coat. Moisten the substrate. Apply a contact coat by rubbing ATLAS PLUS S2 HYDRO into the substrate with a sharp trowel edge. Apply the adhesive with a steel trowel of notch size 10, then smoothen the surface.

STEP 4: Installation of cladding with the 'wet on wet' method. The adhesive should be applied on the bottom side of a tile. It is recommended to rub a thin layer of the adhesive, then apply a thicker layer of mortar with a notched trowel of notch size min. 6. Press the tile and distribute it evenly in order to ensure 100% adhesive spread underneath the tile.

Application of waterproofing coat and tiles in two technological cycles:

The waterproofing coat application should be carried out in similar manner to the one detailed above, steps 1-3. Cladding fixing - when the waterproofing coat sets, the cladding can be fixed with the use of any application method and with a notched trowel of notch size min. 6.

Press the tile and distribute it evenly in order to ensure 100% adhesive spread underneath the tile.

Cladding fixing

The adhesive should be applied onto the surface with a steel trowel, distributed uniformly and shaped (possibly in one direction) with a notched trowel. It is advisable to spread a thin adhesive coat first and then apply the coat of desired thickness and shape it with a notched trowel. It is recommended to lead a notched trowel in one direction. On walls, it's recommended to shape the adhesive vertically.

In the case of tiles installed on a floor, outdoor cladding or large-size tiles, it is recommended to coat the whole tile surface with an adhesive (if needed, use the combined method – apply the adhesive mortar on a substrate and the bottom side of a tile). For fixing large-size tiles 300x100 mm and larger, one of three variations of the combined method is recommended:

- adhesive mortar on the substrate with a trowel 8 mm + adhesive on a tile with a trowel 6 mm,
- adhesive mortar on the substrate with a trowel 10 mm + adhesive on a tile with a trowel 4 mm,
- adhesive mortar on the substrate with a trowel 12 mm + adhesive on a tile with a trowel, smoothened – 1 mm,

After application, the adhesive retains its properties for approx. 30 minutes (at temperature approx. 23 °C and 55 % humidity). Within this time, the tiles must be placed and pressed well (the contact surface between the adhesive and the tile should be uniform and as large as possible – min. 2/3 of the tile surface). Remove excessive adhesive pressed into the joints immediately. Keep the joint width appropriate for the tile size and operational conditions (check data in the data sheets of ATLAS grouts).

Tile adjustment

The position of a tile can be adjusted with delicate moves along the plane of bonding. It can be done within approximately 10 minutes since the tile is pressed (at temperature approx. 23 °C and 55 % humidity).

Grouting and cladding use

It is advisable to use ATLAS grouting mortars. Grouting of cladding applied on a wall is possible after 24 hours since the tiles fixing. Foot traffic and grouting of floor cladding is possible after 24 hours since the tiles fixing. The mortar reaches operational strength after 3 days (check the Technical Data section). Expansion joints, joints along the wall corners, at sanitary equipment, etc. should be filled with sanitary silicone ATLAS SILTON S or ATLAS ARTIS.

Exemplary technological cycle of cladding installation

Cladding fixing technological cycle - Example		
STEP (next layer)	PRODUCT	Layer seasoning before execution of the next step*
Substrate levelling	mortar ATLAS ZW 330	approx. 5 hours
	screed ATLAS POSTAR 80 screed ATLAS SMS 15 screed ATLAS SMS 30	approx. 1 day
	screed ATLAS POSTAR 20	approx. 2 days
	screed ATLAS POSTAR 10 screed ATLAS SAM 100	approx. 14 days
	screed ATLAS POSTAR 100 screed ATLAS POSTAR 40 screed ATLAS SAM 150 screed ATLAS SAM 200 screed ATLAS SAM 500	approx. 21 days
Waterproofing**	ATLAS PLUS S2 HYDRO	wet on wet
Cladding fixing	ATLAS PLUS S2 HYDRO	approx. 24 hours
Cladding grouting	grouting mortars ATLAS	-

*detailed conditions of seasoning are presented in the Technical Data Sheets of particular products.

**in systems without waterproofing, skip steps marked grey.

Consumption for application as a tile adhesive

Average consumption listed in the table below refers to application upon even substrates. Substrate irregularities increase the actual mortar consumption. In case of mixed method of fixing the adhesive consumption is greater.

Tile size [cm]	Area of application	Recommended notch size [mm]	Consumption [kg/m ²]
2 x 2	wall	4	1.5
	floor	4	1.5
10 x 10	wall	4	1.5
	floor	6	2.0
15 x 60	wall	6	2.0
	floor	8	2.6
20 x 25	wall	6	2.0
	floor	8	2.6
25 x 40	wall	6	2.0
	floor	8	2.6
30 x 30	wall	6	2.0
	floor	8	2.6
30 x 60	wall	8	2.6
	floor	10	3.2
40 x 40	wall	8	2.6
	floor	10	3.2
50 x 50	wall	8	2.6
	floor	10	3.2
60 x 60	wall	10	3.2
	floor	12	4.0
above 60 x 60 e.g. 90 x 90, 120 x 20, 300 x 100	wall	combined method (according to the section "Cladding fixing")	approx. 4,6 (depending on the method of fixing)
	floor		
slab tiles*, e.g. 20 x 90 or 25 x 100	wall	8	2,6
	floor	10	3,2

*for tiles of slab type, it is recommended to use the combined method of tiles fixing. In the case of using the combined method, the adhesive consumption will be greater.

Consumption for use as an adhesive + a waterproofing coat

While applying as an adhesive and a waterproofing coat, the consumption is approx. 5,2 kg/m².

Packaging

Foil bag 15 kg.

Important additional information

- The tiles must not be soaked before fixing. When determining the adhesive thickness under the cladding, one should consider the geometric deviation of tiles shape, e.g. plane warpage.
- Conduct test application prior to natural stone tiles or glass elements fixing – apply a single tile. Keep the 60% of surface bonding (leave 40% of a tile with no contact with adhesive). Check the tile appearance after 2-3 days. The test is passed when there is no difference of shade of tile surface in contact and not in contact with the adhesive.
- Open time – from the moment of application of adhesive to the moment of placing the tiles upon it – is limited. In order to check if it is still possible to fix tiles, performing a test is recommended. It consists in pressing fingers against the adhesive. If the adhesive remains on fingers, one can fix the tiles. If fingers are clean, the old layer of adhesive has to be removed and a new one applied.
- The tools must be cleaned with clean water directly after use. Difficult to remove residues of set adhesive can be removed with the ATLAS AGENT FOR REMOVAL OF CEMENT DEPOSITS AND STAINS
- Contains cement. May cause respiratory irritation. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Keep out of reach of children. Avoid breathing dust. Wear protective gloves/protective clothing/ eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Follow the instructions of the Safety Data Sheet.
- The adhesive must be transported and stored in tightly sealed bags, in dry conditions (most preferably on pallets). Protect against humidity. Shelf life of mortar packed in foil bags in conditions as specified is 15 months from the production date shown on the packaging. Content of soluble chromium (VI) in ready-to-use mix - $\leq 0.0002\%$.

The above information constitutes basic guidelines for the application of the product and does not release the user from the obligation of carrying out works according to engineering principles and OHS regulations.

At the time of publication of this product data sheet all previous ones become void. An up-to-date technical product documentation is available at www.atlas.com.pl/en

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