



PRODUCT	Polyroof
MISSION	Thixotropic or self-levelling two-component polyurethane drive-over liquid membrane
CHARACTERISTICS	Polyroof is a solvent-free, two-component, polyurethane liquid waterproofing compound that is either self-levelling or thixotropic. The product is particularly elastic and is therefore well-suited to accommodating settlement movements and those caused by thermal and mechanical stresses in the substrates. Polyroof is used as a waterproofing membrane and top-coat flooring on concrete or asphalt substrates and can also be used for non-destructive repairs on surfaces covered with ceramic tiles or similar materials. In fact, as well as being waterproof, the product has high mechanical and tensile strength; these properties, combined with its excellent aesthetic finish, make the Polyroof System a truly waterproof flooring solution suitable for both foot traffic and heavy vehicular traffic. At perimeter or expansion joints, and at connections between different types of substrate materials, the use of elastic reinforcement tapes from the CasaBand or Acryfelt Band ranges—selected according to specific requirements—is strongly recommended. Polyroof is also available in a thixotropic version for application by roller or trowel on vertical or sloping surfaces (Polyroof Tixio). The product offers excellent resistance to penetration by small roots (tested in accordance with EN 13948); however, for applications where more extensive root growth is anticipated, it is still advisable to add the Anti-Root Additive to the product for greater protection. Polyroof complies with the UNI 11928-1:2023 standard, which defines the characteristics of liquid waterproofing products.
APPEARENCE	Component A: pigmented liquid / thixotropic paste Component B: low-viscosity brown liquid

CHARACTERISTICS OF THE LIQUID PRODUCT

CHARACTERISTICS	VALUE	TOLERANCE	U.M.
Specific weight	1,34	± 0,05	Kg/dm ³
Dry residue	100	± 1	%
Brookfield viscosity (with Brookfield viscometer, rotor no. 4, speed 5)	8500	± 400	mPa.s
Mixing ratio by weight	A : B = 85 : 15		

APPLICATION INSTRUCTIONS

TOOLS	THINNING	TYPE OF THINNER	TOOL CLEANING
Toothed calibrated spatula or roller for self levelling	Ready to use		DIL S1
Smooth metal spatula for the thixotropic version	Ready to use		DIL S1
For spray application please contact the technical office of Casali s.p.a.			

APPLICATION TO AIR-LESS

La Casali S.p.A. si riserva di modificare senza alcun preavviso i dati contenuti nella presente scheda tecnica. L'uso, sia proprio sia improprio, del prodotto indicato nella presente scheda, ricade sotto l'esclusiva responsabilità dell'utilizzatore che è tenuto a una valutazione preventiva dell'idoneità del prodotto alle proprie esigenze, nonché alla massima cura nell'utilizzo di qualsiasi prodotto chimico. L'Ufficio Tecnico della Divisione Sintetici Casali resta a disposizione per chiarimenti e per rispondere a richieste specifiche derivanti dalla natura dell'opera (tel. 071 9162095).



DILUTION		10%	
PUMP MODEL	THOR (LARIUS)	NOZZLE TYPE AND SIZE	TSC 31-60
GUN MODEL	L91X	FILTER MANAGEMENT	Without filters
GUN TUBE DIMENSIONS	3/8" x 15 Mt	PUMP SET PRESSURE	220 BAR

The data reported above are the result of tests carried out by our Technical Office in collaboration with our technical partner Larius, aimed at identifying the ideal equipment and setup for the most correct, easy and effective installation of the product.

In the case of spray applications, the dilution of the product and the preparation may vary depending on the type of pump used.

It is always recommended to carry out preventive tests before using the product with air-less equipment.

RECOMMENDED PRIMER	Epobase, Epobase S, Epobase A, Epocon 312 Tixo, Epobase FU 14 (please check with the Casali technical department to determine the most suitable primer to use).
---------------------------	---

LAYING SURFACE	Polyroof should be applied on compact surfaces ensuring that the humidity level is under 3%; if the residual humidity level of the deck is higher, apply a coating of damp-proofing primer. The minimum permitted roughness should under 0.5 mm.
-----------------------	--

CONSUMPTION	1,35 Kg/sqm for a thickness of 1 mm; the suggested thickness is at least 2 mm.
--------------------	--

APPLICATION INSTRUCTIONS	Mix component A using mechanical agitation, with a drill fitted with a helical mixing paddle, set to a suitable speed, until the mixture is completely homogenised. Take care to keep the paddle fully submerged in the liquid, away from the surface, to prevent the mixture from incorporating air. Whilst continuing to stir, slowly pour component B into the container containing component A. During mixing, carefully run the mixing paddle along all the sides and across the bottom of the container to ensure the two components are thoroughly and evenly mixed. Once a homogeneous mixture has been achieved, the product is ready for application. Once the transfer is complete, avoid emptying the mixing container completely, as there may be residues of product at the bottom that have not been thoroughly mixed. For added safety, once components A and B have been mixed, it is advisable to transfer the mixture to a third, clean and dry container and remix it to ensure that even the last remaining uncatalysed parts are thoroughly blended. Environmental and deck temperature limit during application: MIN 10° C - MAX 30° C Protect the product from ultraviolet radiation with one or two coats of Polytop (evaluate the eventual non-slip effect). On flat steeply sloping surfaces, apply two 1 mm coatings of Polyroof otherwise request the thixotropic version (Polyroof Tixo).
---------------------------------	---

HARDENING AT 23° C AND 50 % U.R.	Pot life: 30' To touch: 12 h Interval between coatings: within 24 h
---	--





The times shown are intended for standard laboratory conditions. Drying times are strongly affected by weather conditions; high temperatures and direct sunlight reduce the drying times; areas in shadow, low temperatures and high humidity increase the drying times. In winter the product should be laid in the middle of the day when it is warmer. Ensure that the previous layer has dried properly before applying the next layer.

CHARACTERISTICS OF THE DRY PRODUCT

CHARACTERISTICS	VALUE	TOLERANCE	U.M.
Breaking load	5	± 1	N/mm ²
Elongation at break	101	± 10	%
Shore A hardness	92	± 1	
Adhesion (with Epobase S)	> 2,5	± 0,5	N/mm ²
Roof's penetration resistance (EN 13948)	Pass		
Fire reaction class (EN 13501 – 1)	B _{fl} – s1		
Water vapor permeability (UNI 1062)	V3 = low		
Water permeability (UNI 1062)	W3 = low		

PERFORMANCE TESTS IN ACCORDANCE WITH UNI 11928-1

CHARACTERISTICS	VALUE	U.M.	CONFORMITY
Determination of Water Vapor Transmission Properties UNI EN ISO 7783: 2019	1,5x10 ⁴	μ	YES
Determination of liquid water permeability UNI EN 1062-3:2008	0.01	kg/m ² h ^{0.5}	YES
Thermal cycles with deicing salts and subsequent adhesion testing UNI EN 13687-1:2003	2 h in water at (21±2) °C 4 h in air at (-15±2) °C 2 h in water at (21±2) °C 16 h in air at (60±2)	/	YES
Measurement of adhesion by direct pull test UNI EN 1542: 2000	1.9	MPa	YES
Determination of resistance to static load UNI EN 12730:2015	200	N	YES
Impact resistance UNI EN ISO 6272-1: 2013	22.6 Class III	Nm	YES
Determination of water tightness UNI EN 1928:2002	7gg a 70°C	/	YES
Determination of crack resistance properties. At -10°C UNI EN 1062-7:2005	A2	°C	YES
Determination of crack resistance properties.	A4	°C	YES



La Casali S.p.A. si riserva di modificare senza alcun preavviso i dati contenuti nella presente scheda tecnica. L'uso, sia proprio sia improprio, del prodotto indicato nella presente scheda, ricade sotto l'esclusiva responsabilità dell'utilizzatore che è tenuto a una valutazione preventiva dell'idoneità del prodotto alle proprie esigenze, nonché, alla massima cura nell'utilizzo di qualsiasi prodotto chimico. L'Ufficio Tecnico della Divisione Sintetici Casali resta a disposizione per chiarimenti e per rispondere a richieste specifiche derivanti dalla natura dell'opera (tel. 071 9162095).



At 23°C UNI EN 1062-7:2005			
Measurement of the slip resistance of a surface UNI EN 13036-4:2011	Dry 71 Wet 22	°C	YES

CERTIFICATIONS	Polyroof complies with the requirement set out in the 2018 Legislative Decree (as amended) regarding the Minimum Environmental Criteria (CAM) on the content of raw materials from renewable sources exceeding 20 %.
-----------------------	--

PACKAGING INSTRUCTIONS	COLOURS AVAILABLE Grey, red on request	PACKAGING A+B = 20 Kg
STORAGE INSTRUCTIONS	STORAGE TEMPERATURE MIN 10° C – MAX 40° C	STABILITY IN THE ORIGINAL PACKAGE 6 months
SAFETY STANDARDS	Please read the safety data sheet carefully before using this product.	



 1381	 Zona Industriale C.I.A.F. – Castelferretti (AN) – 60015 www.casaligroup.it
14 1381-CPR-490 EN 1504-2 : 2004 Products used to protect concrete decks Polyroof System Self-levelling two-component polyurethane liquid waterproofing used to protect concrete against penetration; humidity control and improved resistivity Liquid water permeability < 0.1 Kg/sq.m. h ^{0.5} Permeability to carbon dioxide sd > 50 m Adhesion to standard traction > 0.8 MPa Permeability to water vapour Class I Crack bridging ability Class A4 Freeze-thaw cycles with immersion in thawing salt no alteration Hazardous substances See SDS Fire reaction class B _{fl} – s1	

