

**Declaration of Performance**  
(according to regulation EU No 305/2011)

No. LO-027-CPR2023-01-05

- 1) Code of the product type: **LDPE – class A1, A2, A3**  
**HDPE – class B1, B2, B3**

Type: External coatings for buried or submerged pipelines according to **standard EN ISO 21809-1:2018**

- 2) Intended use in accordance with the applicable technical specification and ETA, as foreseen by the manufacturer:  
used in pipeline transportation systems

- 3) Liberty Ostrava a.s.  
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- 4) System of assessment and verification of constancy of performance of the product:  
ETA 21/0369

- 5) EN ISO 21809-1:2018

Notified body No. 1020 TZUS Prague performed the initial inspection of the manufacturing plant and of factory production control, tested polyethylene coating samples, compiled European documents for EAD assessment (EOTA) and issued European Technical Assessment for LDPE and HDPE coatings.

- 6) The performance of the product identified in point 1 is in conformity with the declared performance in the table.

- 7) This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 3. Signed for and on behalf of the manufacturer by:

**Radim Svěchovský**  
Q-Engineer – LO a.s.

**Michal Kolář**  
Q/A manager – LO a.s.




Date : 5.1. 2023

Essential characteristic	Performance						Technical specification			
	P <sub>m</sub>	Unit	Values							
			Class A			Class B				
Total coating thickness	P <sub>m</sub> ≤ 15	Kg/m	A1	A2	A3	B1	B2	B3	EN ISO 21809-1:2018	
	15 < P <sub>m</sub> ≤ 50		1,8	2,1	2,6	1,3	1,8	2,3		
	50 < P <sub>m</sub> ≤ 130		2,0	2,4	3,0	1,5	2,1	2,7		
	130 < P <sub>m</sub> ≤ 300		2,4	2,8	3,5	1,8	2,5	3,1		
	P <sub>m</sub> > 300		2,6	3,2	3,9	2,2	2,8	3,5		
Temperature	Unit	Class A			Class B					
Strain in brake	at 23°C ± 3°C	%	≥400			≥400				
Stress at yield	at 23°C ± 3°C	MPa	≥10,0			≥15,0				
Continuity	-	-	Free of defects and discontinuities, delaminations, separations and holidays							
Indentation	at 23°C ± 3°C	mm	≤ 0,3			≤ 0,2				
	at maximum design temperature		≤ 0,4			≤ 0,4				
Impact strength	at 23°C ± 3°C	J/mm	>5			>7				
Peel strength	at ≥ 23°C	N/mm	≥10,0			≥18,0				
	at ≥ 60°C		≥2,0			-				
	at ≥ 80°C		-			≥5,0				
ΔT <sub>g</sub>	-	°C	-3,0°C ≤ ΔT <sub>g</sub> ≤ +3,0°C							
Product stability during appl. of the PE top layer process	-	%	ΔMFR ≤ 20							
Cathodic disbondment	at 23°C/28d; -1,38V	mm	≤ 5,0							
	at 65°C/28d; -1,38V		≤ 4,0							
Flexibility	-	Degrees per pipe length diameter	No cracking at an angle of 2,0° per pipe diameter length							
Resistance to hot water	-	mm	Average ≤ 2,0 and maximum ≤ 3,0							
UV resistance	-	%	ΔMFR ≤ 35			ΔMFR ≤ 35				
Apparent density of PE coating	-	g/cm <sup>3</sup>	≥0,930			≥0,940				