DECLARATION OF PERFORMANCE
N°1.0545

1. Unique identification code of the product-type: **1.0545**
2. Type number: **S355N**
3. Intended use of the construction product, in accordance with the applicable harmonised technical specification: **EN 10025-1:2004**

   HOT ROLLED STRUCTURAL STEEL PRODUCTS TO BE USED IN METAL STRUCTURES OR IN COMPOSITE METAL AND CONCRETE STRUCTURES
4. Name and contact address of the manufacturer:

MARCEGAGLIA PLATES S.P.A.
Registered office **- Via Bresciani, 16 – 46040 Gazoldo degli Ippoliti (MN)**
in the factory
Via E. Fermi, 28 – 33058 San Giorgio di Nogaro (UD)

6. System of assessment and verification of constancy of performance of the construction product: **2+**
7. Name and identification number of the notified body:

CARES – Pembroke House, 21 Pembroke Road Sevenoaks, Kent, TN13 1XR
N° 1244

It has issued the certificate of conformity of the factory production control based on the following elements:
i. initial inspection of the factory and of the factory production control;
ii. continuous surveillance, assessment and approval of the factory production control.

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued: **N.A.**
9. Declared performance:

Essential characteristics	Requirement clauses in this (or another) European Standard	Performance	Harmonised technical specification
Tolerances on dimensions and shapes	7.7.1	EN10029	**EN 10025-3:2019**
Elongation	7.3.1	COMPLIANT TABLE 1	
Tensile strength	7.3.1		
Yield strength	7.3.1		
Impact strength	7.3.1+7.3.2		
Chemical Analysis	7.2.1	COMPLIANT TABLE 2	
Weldability (Chemical composition)	7.2+7.4.1	NPD	
Durability (Chemical composition)	7.2+7.4.3	NPD	

10. performance of the product the identified in points 1 and 2 is in conformity with the declared performance in point 9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and behalf of MARCEGAGLIA PLATES S.P.A.
Massimo Ing. Zat
Plant manager of San Giorgio di Nogaro , Via E. Fermi ,28

San Giorgio di Nogaro, 01/01/2025

➢ TABLE 1- ESSENTIAL CHARACTERISTICS IN ACCORDING TO EN 10025-3:2019

MECHANICAL PROPERTIES AT AMBIENT TEMPERATURE - table 5											
DESIGNATION ACCORDING TO		MINIMUM YIELD STRENGTH ReH IN N/mm²								TENSILE STRENGHT Rm IN N/mm²	
		Nominal thickness mm								Nominal thickness	
EN 10027-1	EN10027-2	≤16	>16 ≤40	>40 ≤63	>63 ≤80	>80 ≤100	>100 ≤150	>150 ≤200	>200 ≤250	≥3 ≤100	>100 ≤250
S355N	1.0545	355	345	335	325	315	295	285	275	470÷630	450÷600

MECHANICAL PROPERTIES AT AMBIENT TEMPERATURE – table 5								
DESIGNATION ACCORDING TO		Position of test pieces	MINIMUM PERCENTAGE ELONGATION AFTER FRACTURE A%					
			$L_0=5,65*\sqrt{S_0}$					
EN 10027-1	EN10027-2		≥3≤16	>16≤40	>40≤63	>63≤80	>80≤200	>200≤250
S355N	1.0545	t	22	22	22	21	21	21

MECHANICAL PROPERTIES – IMPACT STRENGTH KV_2 LONGITUDINAL FOR FLAT PRODUCTS – table 6				
DESIGNATION ACCORDING TO		TEMPERATURE	MINIMUN ENERGY (J) – THICKNESS mm	
EN 10027-1	EN10027-2	°C	≤150	>150≤250
S355N	1.0545	-20	40	40

➢ TABLE 2 – ESSENTIAL CHARACTERISTICS IN ACCORDING TO EN 10025-3:2019

CHEMICAL COMPOSITION OF THE LADLE ANALYSIS - table 3															
DESIGNATION ACCORDING TO		C	Si	Mn	P	S	Nb	V	Al	Ti	Cr	Ni	Mo	Cu	N
EN 10027-1	EN10027-2	max.	max.		max.	max.	max.	max.	min.	max.	max.	max.	max.	max.	max.
S355N	1.0545	0,22	0,55	0,85 1,75	0,035	0,030	0,06	0,14	0,015	0,06	0,35	0,55	0,13	0,60	0,017

MAXIMUM CEV BASED ON LADLE ANALYSIS - table 4				
DESIGNATION ACCORDING TO		maximum CEV in % for nominal product thickness in mm		
EN 10027-1	EN10027-2	≤63	>63≤100	>100≤250
S355N	1.0545	0,43	0,45	0,45