GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Polymers in protection against corrosion, PG_00060319		
Field of study	Materials Engineering, Materials Engineering		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	first-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	5	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Corrosion and Electrochemistry -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Michał Szociński	
	Teachers	dr hab. inż. Michał Szociński	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	15	2.0	8.0	25

Subject objectives

The subject provides student with the knowledge about the main anticorrosion protection technologies, which involve polymers or polymer-based materials.

Learning outcomes

Course outcome	Subject outcome	Method of verification

Subject contents

Course content – lecture
Types of polymers used for anticorrosion protection.

Testing polymers for degradation resistance.

Modification of the properties of polymer materials

Paints, lacquers, composites.

Organic coatings: types, application, mechanisms of protection.

Prerequisites and co-requisites

Knowledge about fundamentals of corrosion and chemistry of polymers.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
final test	60.0%	100.0%

Recommended reading	Basic literature	A. Miszczyk, M. Szociński, K. Darowicki, Powłoki malarskie w ochronie przeciwkorozyjnej. Zasady stosowania i kontrola jakości, Wydawnictwo Politechniki Gdańskiej, 2022. W. Przychodzeń, K. Darowicki, Charakterystyka chemiczna żywic i rozpuszczalników do farb oraz powłok ochronnych, Wydawnictwo Politechniki Gdańskiej, 2011. M. Żenkiewicz, M. Stepczyńska, T. Karasiewicz, K. Moraczewski, P. Rytlewski, Metody badań i oceny niektórych właściwości tworzyw polimerowych i metali, Uniwersytet Kazimierza Wielkiego, 2012.
	Supplementary literature	K. Żakowski, K. Darowicki, Ochrona katodowa konstrukcji metalowych podziemnych i zanurzonych, Wydawnictwo Politechniki Gdańskiej, 2011
	eResources addresses	
Example issues/ example questions/ tasks being completed	Methods of accelerated aging of polymers. Influence of cathodic protection on organic coatings. Rules of selection of coating materials.	
Practical activites within the subject	Not applicable	

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