

The main objective of NANOPIGMY project is to develop multi-functional ceramic pigments by applying nanotechnologies to give a product (paint, plastic or concrete) different functionalities through the use of NANOPIGMY pigments avoiding further surface treatments of the product or previous modification of bulk materials with nanoparticles with the final aim of improving sustainability of construction and automotive sectors at an efficient cost.

Table below summarizes the four pigments that will be developed in NANOPIGMY project, the sectors where they will be used and the objectives of their use.

	MODIFICATIONS		SECTOR	MATERIAL	OBJECTIVE
	Self-ger coating	NP embedding			
PIGMENT 1	Antibacterial (with Ag ⁺)	PCM (energy)	CONSTRUCTION	PAINT & PLASTIC (interior)	IMPROVE ENERGY & SUPPLY SUSTAINABILITY
PIGMENT 2	IR high-reflection (with TiO ₂ /ZnO NPs)	Autocompression (Hybrid Silica/epoxy)	AUTOMOTIVE	PAINT (exterior)	IMPROVE EFFICIENCY & LENGTHEN MAINTENANCE LIFE TIME
PIGMENT 3	Self-cleaning (TiO ₂)	PCM (energy)	CONSTRUCTION	CONCRETE (exterior)	IMPROVE EFFICIENCY & REDUCE TOXIC AND HARMFUL PRODUCTS USE
PIGMENT 4	Self-healing (epoxy + curing agent)	Ag (antibacterial)	AUTOMOTIVE	PLASTIC (exterior)	FOR HEALTH & LENGTHEN MAINTENANCE LIFE TIME