

# José-Manuel Martins

Ph.D. in Physics and Chemistry of Polymers



## Profile

59 years old  
Seniority : 11 years,  
associate  
English  
Portuguese

**Chemistry, Petrochemistry,  
physics and formulation of  
Polymers**

**Plastics and rubbers**

**Resins, sealants, paints and  
coatings**

**Glues and adhesives**

**Materials for electrical  
insulation, dielectrics**

**Industrial processes and  
products**

**Project management**

**Health, Safety and  
Environment**

**Corrosion**

**REACH**

**Certified CRAC Expert  
Approval N°14  
(Physico-chemistry of  
materials/corrosion)**

## Education

### **Ph.D. in Physics and Chemistry of Polymers**

University of Le Mans

### **Master Degree in Physics and Chemistry of Polymers**

University of Paris VI

## Professional background

### **SEG Diélectriques**

Technical and Industrial Manager  
R&D Manager – Materials for electrical insulation – Electrical Engineering  
HSE Manager

### **Rhodia Silicones**

R&D Engineer  
Laboratory Manager – Industrial assistance, pilot, products, processes and industrialization  
Project Leader

### **University of Bayreuth (Germany) – Henkel**

R&D Engineer – Materials for paint & varnish coatings  
Head of Analytical Laboratory

### **University of Le Mans**

#### **Institute for Polymers Applied Research**

R&D Engineer – Materials for paint & varnish coatings, elastomers and rubbers, etc.  
Head of Analytical Laboratory

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## Key areas of expertise

### Chemistry – Petrochemistry – Physics – Materials – Plastics

- Polymers, plastics, rubbers
- Formulations (inks, varnishes, resins, adhesives, paints, coatings, etc.)
- Structural properties and performance of materials
- Materials processing and applications
- Material design, manufacturing, formulation, or processing failings, ageing (coating resins, seals, bonding, concrete, composites, etc.)
- Accidental contaminations of products
- Adhesion failures
- Breakdown of electrical insulation products
- Material processing defects (coating resins, etc.)
- Waterproofness damages: infiltration, SEL
- Automotive: technical failures, suppliers, recalls, etc.

### Corrosion

- Corrosion of storage tanks for varnishes, solvents, gases, etc.
- Corrosion of lagging and piping
- Corrosion of reinforcing bars and metal parts (concrete, gates, etc.)
- Surface treatment
- Standard tests (salt spray, etc.)
- Ovens/refractory materials and ceramics: heat treatments, construction
- Packaging: plastic, glass, complex films, packaging items, caps

### Industrial processes

- Chemicals and derivatives manufacturing plants
- Impacts of manufacturing processes (reactors, mixers, coating ovens, ...) on product quality (polymerisation failures, cracking, folds, tears, blistering, delamination, etc.)
- Process malfunctions resulting in fires (static electricity, etc.)
- Treatment plants (physicochemical separations, biological treatment, water treatment)
- Traceability - conformities - analytical methods - non-destructive testing

### Engineering – Miscellaneous

- Project management, site monitoring
- Methodologies for analysis/diagnosis/audits/troubleshootings
- Financial claims, studies of material and consequential losses, operating losses, withdrawal operations (injunction, prevention, safety, consumer warning, etc.)
- Health, Safety and Environment (HSE), management & prevention of industrial risks, health risk, toxicity for environment
- Operational training and support advice related to the areas of expertise and risk management