Gijsman Durability Advisory

- Durability of Polymeric Materials
- Polymer Degradation and Stability

https://www.gijsmandurabilityadvisory.nl/

Work Experience:

Main activity:
1982-2021 DSM Research and Development (Materials Science Centre) (Principal) Scientist Polymer Degradation and Stability

Polymeric materials worked on:

- Polyolefins (Polyethylene and Polypropylene homo and copolymers)
- Engineering Plastics (Polyamides (6, 66, 46, 4T, 6T), Polyesters (PET, PBT, Polyetheresterblockcopolymers), PPS, PC)
- Biopolymers (PLA, PBS)
- Rubbers (EPDM)
- Coatings (Powder coatings, Coil coatings, UV curable coatings, Alkyd resins)
- Thermosets

Work Experience:

Extracurricular activities:

2001-2006 Consulting Professor at the University of Kristianstad, Sweden

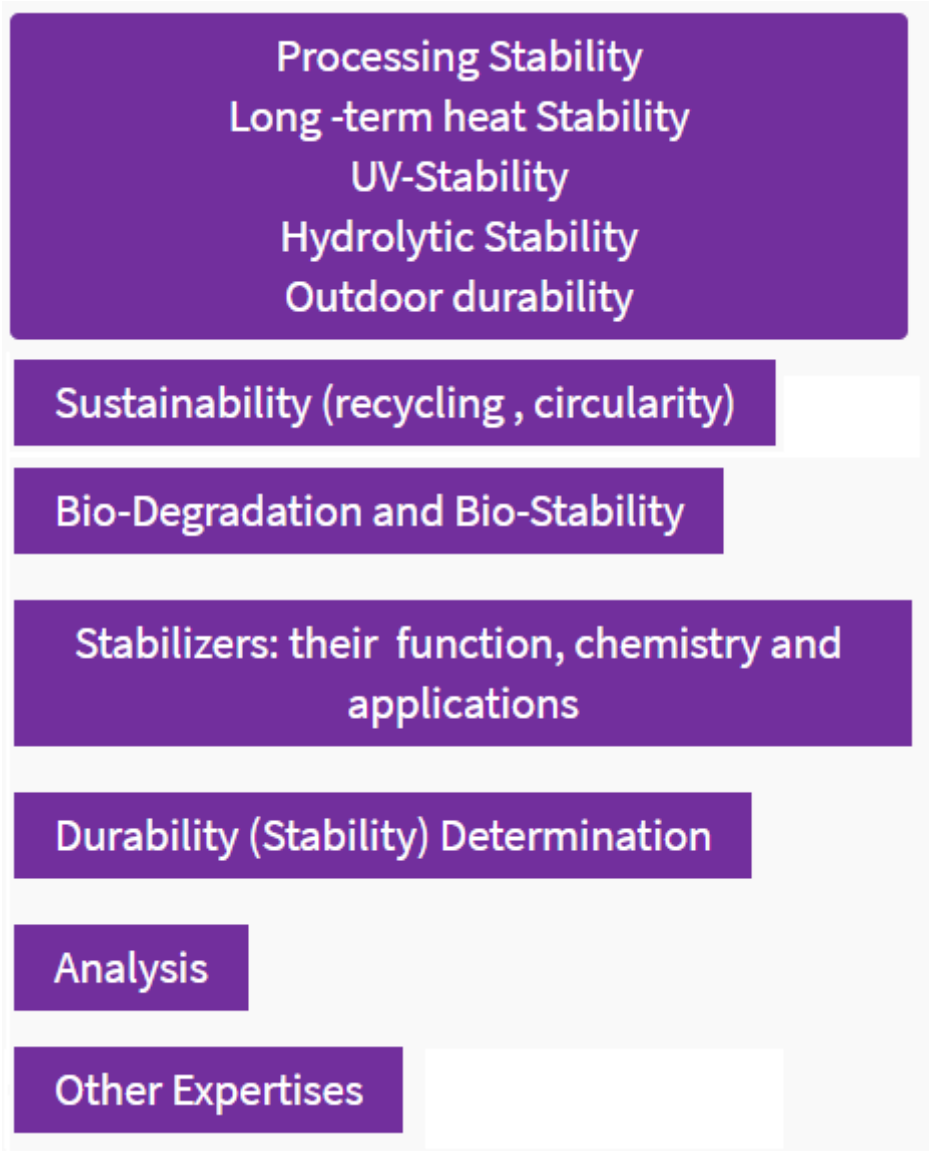
2005- 2012 Visiting Professor at the Technical University of Eindhoven

2001- Member of the editorial board of the journals Polymer Degradation and Stability, npj Materials Degradation, Journal of Vinyl and Additive Technology.

2016- Secretary of the MODEST society

2016- Committee Member **P**olymer **D**egradation Discussion **G**roup

Expertises:


Processing Stability
Long -term heat Stability
UV-Stability
Hydrolytic Stability
Outdoor durability
Sustainability (recycling , circularity)
Bio-Degradation and Bio-Stability
Stabilizers: their function, chemistry and applications
Durability (Stability) Determination
Analysis
Other Expertises

Achievements:

Publications (81)

Latest 5:

- 81. P. Gijsman, G. Hensen, M. Mak, Thermal initiation of the oxidation of thermoplastic polymers (Polyamides, Polyesters and UHMwPE) Polymer Degradation and Stability, Volume 183,2021,109452
- 80. J. Rommens, and S. De Backer, Chemours Belgium; P. Gijsman and L. Molhoek, DSM Netherlands THE LASTING IMPACT OF TITANIUM DIOXIDE A better understanding of how TiO2 affects powder-coat weathering EUROPEAN COATINGS JOURNAL 04, 2020, 30-36
- 79. P. Gijsman, Polymer stabilization, In: Myer Kutz Editor, Handbook of Environmental Degradation of Materials third Edition, 2018, by Elsevier, pp 369-395
- 78. S. Al-Malaika, P. Dubois, P. Gijsman, H. Zahalka, Polymers, environment and sustainable developments: Opportunities and recommendations for the coming decade, Polymer Degradation and Stability, Volume 143, 2017, Pages 104-105
- 77. P. Gijsman, A review on the mechanism of action and applicability of Hindered Amine Stabilizers, Polymer Degradation and Stability, 145 (2017) 2-10

Patents (60)

Latest 5:

- 60 Pieter Gijsman, Robert Jansen, Alessandro Gualdi, Wei Huang, Ruofei Zhao, Photovoltaic module backsheet comprising polyolefin layers, PCT/EP2020/082879, 20 Nov 2020 WO2021099569(A1)
- 59. VAN DUIJNHOVEN FRANCISCUS GERARDUS HENRICUS]; JANSSEN ROBERT HENDRIK CATHARINA; GIJSMAN PIETER; JANSSEN MARK MARTINUS MARIA, BACK-SHEET COMPRISING POLYBUTYLENE TEREPHTALATE WO2019185842
- 58 . Gijsman, M. Vlasblom, J. Drieman, UHMWPE FIBER, YARN AND ARTICLES THEREOF DSM reference number 32240-EP-EPA, filing date: 27 September 2016, European patent application number: EP16190869.4 WO2018/060127
- 57. P. Gijsman, T. Huber, S. Scheuplein, P. Riebel, Tocopherol adsorbate for use in thermoplastic polymers, DSM reference number 30951-EP-EPA, filing date: 26 August 2014
- 56 . TOMIC K; MELICK VAN H; BAUGHMAN T; DAENEN R; STROEKS A; DERKS F; GIJSMAN P; HIGH-HEAT DELIVERY DEVICE WO2016135304(A1)

What to offer:

Support on project basis as advisor

Lecturer (internal course possible)

Proposing test programs based on literature, contacts and personal knowledge

Evaluating test results

Sparring partner