

13.00	
	»Ontvangst en registratie
13.30	
	»Opening door Voorzitter VKRT
13.40	Adhesion of rubber to thermoplastic without the use of adhesives »Rik Bokhorst; Freudenberg Sealing Technologies
Lecture	<p>Products made of combinations of rubber and thermoplastic offer several advantages over rubber-metal parts in function and costs; but in order to achieve these advantages the adhesion of the two components must be assured.</p> <p>The common way to assure a good adhesion is the use of adequate adhesives. However the use of adhesives has several drawbacks.</p> <p>This presentation describes on the basis of product examples, that it is possible to achieve good adhesion between rubber and thermoplastic without the use of adhesives by using the so-called 2-components injection moulding technology.</p>
14.20	Strong Bonds - Connecting what matters with Adhesives and Bonding Agents »André Ruth Kömmerling; Cillbond
Lecture	<p>To connect what matters we need the right adhesives / bonding agents at the right place in the right amount for the right surfaces within the right processes. H.B. Fuller / Kömmerling and H.B. Fuller Cillbond can supply different kind of adhesives and bonding agents for various applications in the automotive and general industry.</p> <p>The presentation starts by introducing H.B. Fuller Kömmerling and H.B. Fuller Cillbond and with a general overview over the portfolio of adhesives and bonding agents.</p> <p>The second part points out the differences between ?classical? or ?regular? adhesives and bonding agents (chemical bases, production, handling, processing, applications, performance of end products, etc.) with several examples of use. A short overview of all bonding agents shows how versatile products and applications can be (coil coating, glass moulding, rubber, silicone and PU bonding agents).</p> <p>The third part of the presentation focuses on products (BA) especially for rubber to metal bonding ? which are our Cillbond products of course. Topics are materials to bond including preparation, processing and a short outlook on new developments and trends for the future.</p>
15.00	A Review on Steel Cord & Wire - Rubber Adhesion »Guy Buytaert; Bekaert

Lecture	While brass coated steel cords are extensively used as reinforcement material in radial tires, bronze coated wires are the foundation reinforcement of tire beads. It is crucial for the performance and life-span of passenger and truck tires to achieve optimal adhesion between rubber and steel. This presentation will review the adhesion build-up and degradation mechanisms of the adhesion interphase layer, that bonds brass coated steel cords and bronze coated steel wires with rubber. Other topics include standard adhesion tests, advanced interphase studies, current state of the art technology and what the future holds for improving rubber adhesion.
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15.40	
	»Pauze

16.00	Adhesion activation of Twaron Aramid Fibers
	»T. Mathew; Teijin Aramid
Lecture	Aramid fibers are successfully used as reinforcing material in a growing number of rubber applications such as tires, hoses, and belts. In these dynamic applications, optimal transfer of loads and stresses from the rubber matrix to the reinforcing fiber is required. In order to achieve this, the interfacial adhesion is optimized by using a Resorcinol Formaldehyde Latex (RFL) based dipping system as chemical and physical ?bridge? between the fiber cord and the rubber matrix. In order to improve the interaction between fiber and RFL, the aramid is generally ?pre-activated? with an epoxy based dipping system or an epoxy based spin finish. The pre-activation process results in hydroxyl groups fixated at the fiber surface, available for reaction with the RF part of the RFL dip. Plasma treatment has been investigated as potential alternative for the epoxy treatment. Several parameters have been considered, e.g. yarn versus cord treatment, presence of spin finish during treatment, and storage time between treatment and RFL dipping. By combining surface analytical data with rubber adhesion evaluation results, understanding can be reached about process/performance relations and conclusions can be drawn on the feasibility of epoxy replacement by plasma treatment.

16.40	Rubber to plastic bonding of a valve poppet in an AdBlue dosing unit.
	»André Albers; Vernay Europa
Lecture	Vernay Europa B.V. supplies amongst others assemblies for 1st tier suppliers to the automotive industry. An example of such an assembly is the supply module of an AdBlue dosing system for which Vernay developed rubber to plastic bonded valves. The miniature size in combination with tight dimensional tolerances of these valve poppets creates a challenge to the manufacturing processes. This presentation highlights the considerations related to the development of the rubber to plastic bonding system of the poppet.

17.20	
	»Aperatief met aansluitend diner