

Mike Edison
09-6-4

BASF Solar Energy Management

C.A.R.B. Presentation June 25th 2009



BASF's Role

- Who we are?
 - Pigments and additives for plastics and paints
- What we are?
 - The world's leading chemical company
- Why are we here?
 - One of our 4 pillars of success is :
“Ensure Sustainable Development”
 - This is our commitment for a better future for us
and coming generations
- How can we help to accomplish this?
 - Solar energy management

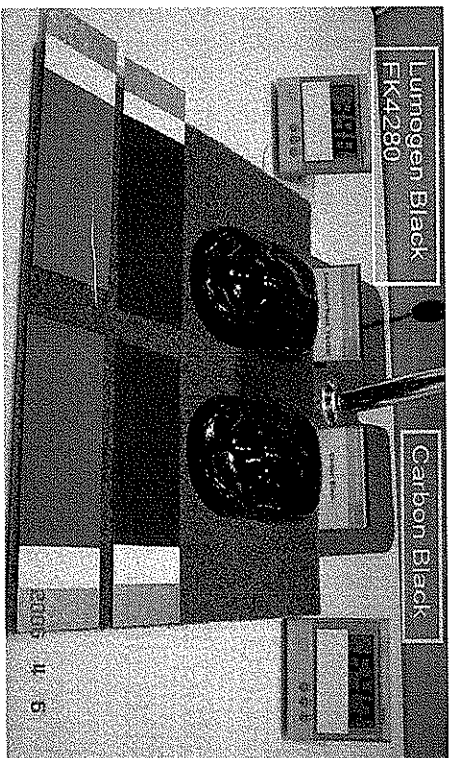
Solar Energy Management

- In a world faced with global warming, dwindling energy supplies, rising population and population shifts to warmer climates – the time for solar energy management is now.
- BASF additives has at least 3 technologies that can help our cars be cooler and therefore use less fuel to cool the interior.
- NIR Reflecting Pigments (Meteor, Sicotan and Sicopal)
 - Used in plastics and paints
- NIR Transparent Black Pigments (Lumogen)
 - Used in plastics and paints
- NIR Absorbing Additives (Lumogen IR)
 - Used in transparent applications (Windshields, Sunroofs)

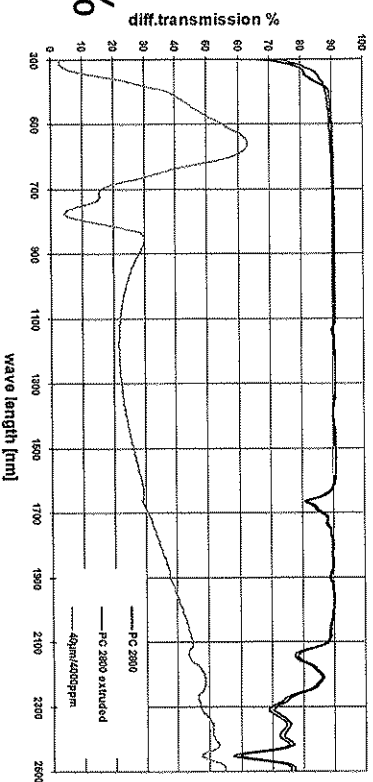
Examples

- Paints
 - Reduction in temp. of dark coatings of 20°C resp. 38F; paint and primer in optimization
- Plastics
 - Increase in TSR% over carbon black of 22% (from 5 to 27%). Formulations optimized, development ongoing.

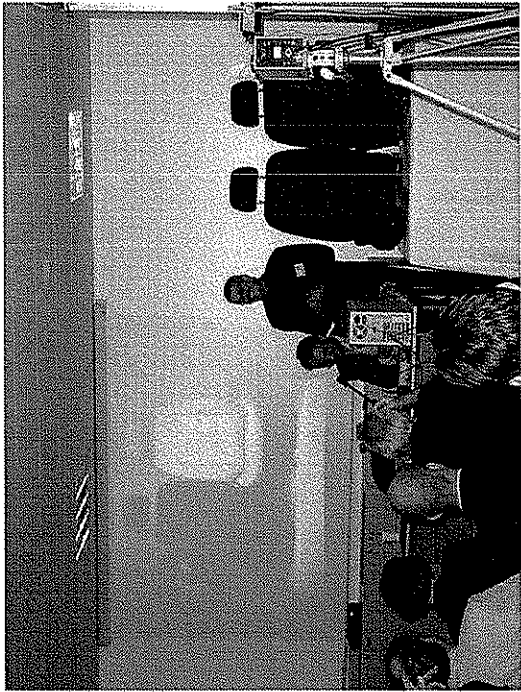
- Transparent applications
 - Reduction of interior temps. 10 degrees C
 - Reduction of TST of 50%



Name	CI index	Chemistry	TSR%
Carbon Black	PBk 7	Carbon Black	4.9
Meteor [®] High IR Black 7895	PBr 35	Cr-Fe	26.8
Meteor [®] Plus Black 9880	PBr 29	Cr-Fe-Mn	19.5
Meteor [®] Plus Black 9882	PBr 29	Cr-Fe-Mn	17.5
Meteor [®] Plus Black 9887	PBr 29	Cr-Fe	25.8
Meteor [®] Plus Black 9889	PBr 29	Cr-Fe	26.4
Meteor [®] Plus Black 9891	PBr 29	Cr-Fe	21.1
Meteor [®] Plus High IR Black 9895	PBr 35	Cr-Fe	27.5
Meteor [®] Plus Jet Black 9875	PBk 28	Cu-Cr	5.4
Sicopal [®] Black K 0095	PBr 29	Cr-Fe	23.5

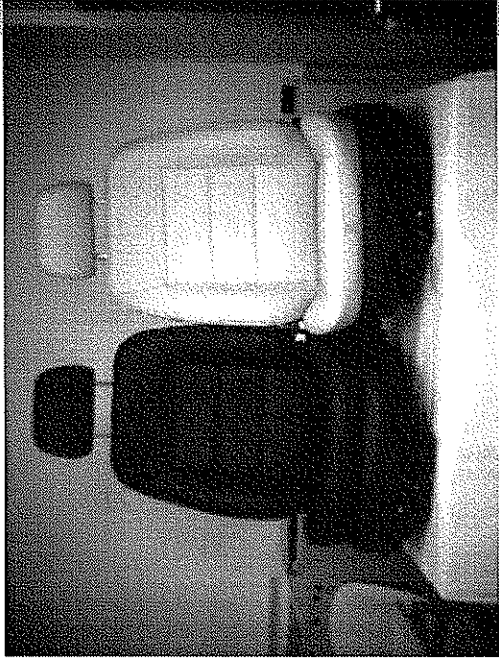


Leather Seats for Cars and Trucks



The picture on the left hand side shows two black colored leather seats.

The picture on the right hand side was taken with an NIR camera. It shows that the seat on the right hand side is much cooler.



Summary

- Desire to develop sustainable solutions but need partners
- Global supply and support
- Contacts with all automotive OEM's and many tier suppliers
- 3 technologies
 - NIR reflecting
 - NIR transparent blacks
 - NIR absorbing
- Solution provider with many functional additives

Michael.Edison@BASF.com (NAFTA)

Guenter.Scherer@BASF.com (Europe)

Johannes.Loebel@BASF.com (Europe)