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Evaluating Zerust film from Hyundai Korea

Background: Boris Miksic submitted Zerust film from Hyundai Korea.

Purpose: Determine chemistry and mechanical properties of submitted film.

Method: Nitrite Test

FT-IR

Mechanical properties testing

Materials: EM Quant Nitrite/Nitrate test strips (lot # OC332590, exp 7/06)

Perkin Elmer Paragon 1000 FT-IR Spectrometer Submitted Zerust Film from Hyundai Korea (3 mil)

Cortec VpCI-126 film (3 mil)

Procedure: The above tests were performed according to standard procedures for each.

Results:

Nitrite Test: Submitted film is heavily nitrite based. No any other corrosion inhibitors were found

by FT-IR.

FT-IR: See attached

Mechanical Properties

Test	Zerust Film (3 mil)	Cortec VpCI-126 film
		(3 mil)
Tensile Strength at Break,	3136.96/4175.09	5078.9/5091.21
ASTM D 882, (psi)		
% Elongation at Break,	415.8/375.6	538/534
ASTM D 882A, (%)		
Tensile Strength at Peak,	3306.24/4343.94	5079.23/5091.21
ASTM D 882, (psi)		

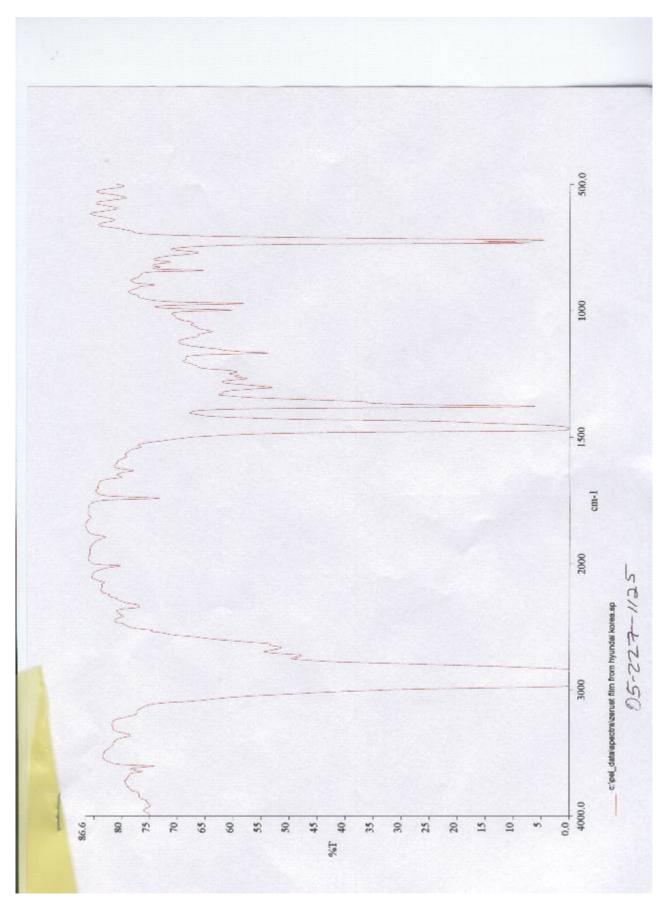
Conclusion: From FT-IR, the plastic is LDPE, and contains a significant amount of nitrite in

addition to the yellow pigment.

Project #: 05-227-1125







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