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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, ASTM D 882, (psi)	3136.96/4175.09	5078.9/5091.21
% Elongation at Break, ASTM D 882A, (%)	415.8/375.6	538/534
Tensile Strength at Peak, ASTM D 882, (psi)	3306.24/4343.94	5079.23/5091.21

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



