

# Whole Sweet Potatoes Flow Wrapped in MYLAR® Film

# Sample Parameters

- Whole sweet potatoes were purchased from local grocery stores
  - Purchased and stored at room temperature
- Sweet potatoes were washed and patted dry before packaging
- Sweet potato skins were **not** pricked prior to packaging and/or cooking



# Flow Wrap Parameters

- Non-perforated Mylar® OL (100 gauge) film was evaluated
- Flow-wrapped packages were made by hand
- Samples were stored at room temperature prior to cooking



# Microwave & Home Oven



## Home Microwave Oven

GE Profile

1200W

Turntable

Large Cavity (2.2 cu ft)

**Please Note:** Samples were either placed directly on to the microwave's turntable or on a microwave-safe plate and then into the microwave



## Electric Range & Home Oven

Kitchen Aid

**Please Note:** Samples were placed on foil lined baking sheets and baked on the center oven rack

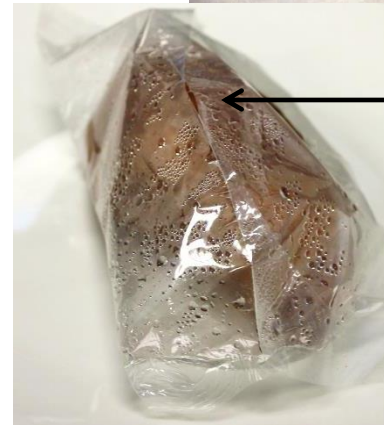
# Home Oven Baked Sweet Potatoes

- Film: Mylar® OL (100 ga)
- Weight: 286.6 g
- Baked in an electric home oven at 400°F for 45 min but was still slightly firm and required 5-10 min more
  - Suggest 45-60 min depending on size
- One tiny (pinhole) vent developed at one end of the package
- Able to be peeled with minor shredding
- The potatoes came away from the packages easily
- The packages contained the moisture released from the potatoes (no leaking onto pan)



# Microwaved Sweet Potato

- Film: Mylar® OL (100 ga)
- Weight: 261.4 g
- Microwaved (1200W; turntable) at 100% power for 5 min
- Moist and tender
- Skin separated easily from flesh
- Vented along the fin and peeled open easily
- The packages contained the moisture released from the potatoes (no leaking onto plate or microwave turntable)
- No significant difference in cook quality compared to home oven



← Vent  
along fin



# Findings & Recommendations

- 1000L provided a quiet vent, good peel-ability and wonderful visual appeal (high clarity). Worked well in both microwave and home oven.
- Test different sealing temperatures to optimize venting and peeling:
  - Try temperatures ranging from 250-350°F
  - Try sealing ends at a higher temperature than fin
- Test application on flow wrap machine
- Determine transmission rates required for fresh, whole sweet potatoes, and possible perforation options

# Disclaimer

- The information provided herein is offered as a possible helpful suggestion in experimentation you may care to undertake along these lines. It is subject to revision as additional knowledge and experience is gained. DuPont Teijin Films makes no guarantee of results and assumes no obligation or liability whatsoever in connection with this information.
- Note: the cooking instructions provided herein are based off electric home ovens and combi-convection ovens, oven temperatures and performance may vary.
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