PHENIX Note # 245
addendum

# Comparison of New and Old Tyvek Style 1055B

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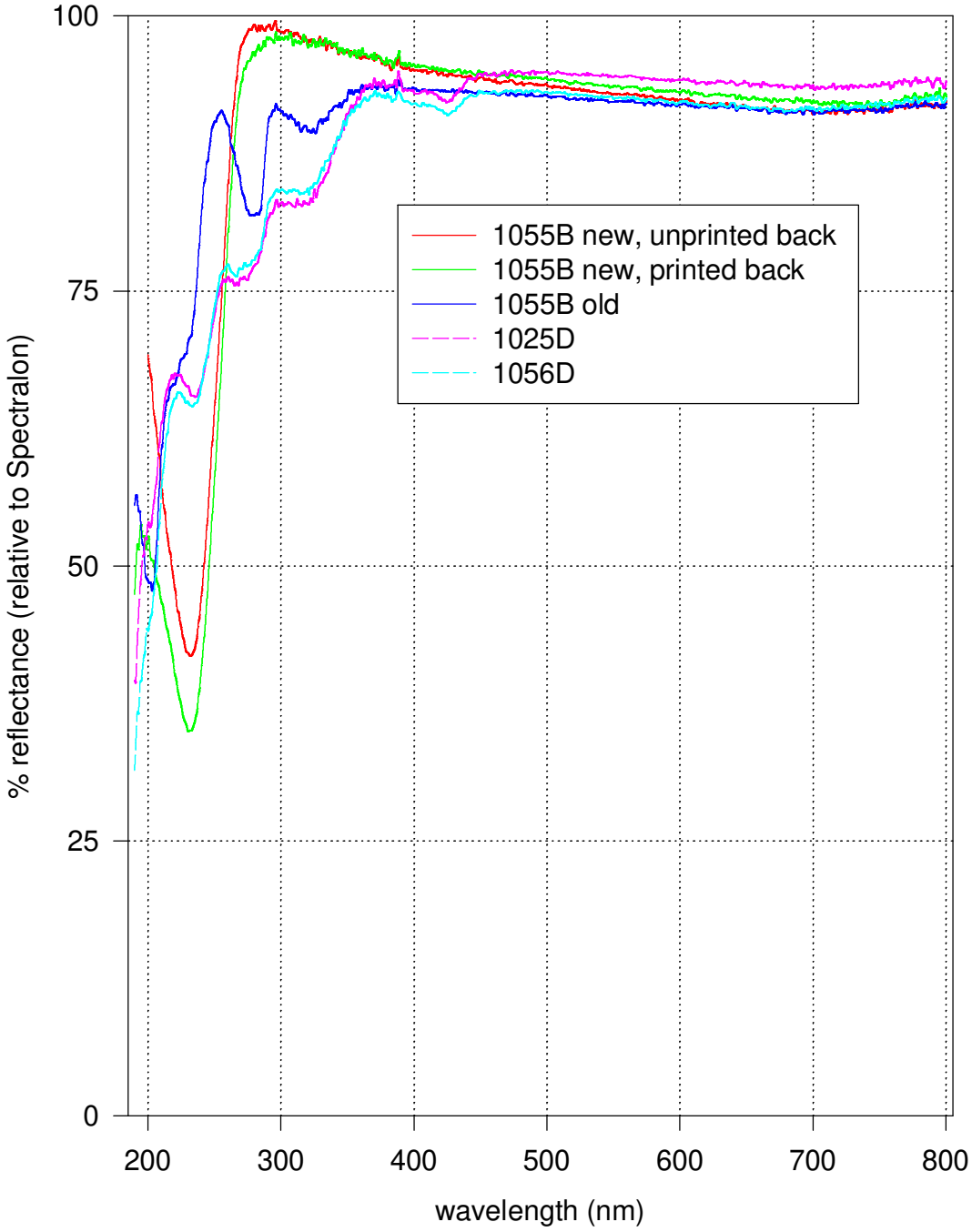
The % reflectance and thickness of the new and old style #1055B Tyvek papers was measured and compared. DuPont alterred the physical characteristics of style #1055B since the start of the Phenix EM Calorimeter assembly. The new version has a different texture, especially on the reverse side, a different weight, and is printed with the Tyvek logo on the reverse side. The new style is no longer UV stabilized

The reflectance of the new style 1055B is higher than that of the old 1055B down to about 255nm, where the reflectance of the new style drops steeply. The printing on the reverse of the paper did not have a large effect on the reflectance of the front.

There was no significant difference in the average measured thicknesses of the new and old versions. There was less variation in the thickness of the new style within the sample measured.

**Thickness measurements of new and old style 1055B Tyvek**

| | old | new |
|---|---|---|
| | .0049” | .0056” |
| | .0048” | .0056” |
| | .0061” | .0054” |
| | .0049” | .0055” |
| | .0064” | .0053” |
| | .0056” | .0058” |
| | .0052” | .0053” |
| | .0050” | .0060” |
| | .0057” | .0049” |
| | .0061” | .0052” |
| mean | .00547” | .00546 |
| sigma | .00059 | .00031 |
| sig/mean | 11% | 6% |


100
75
50
25
0
% reflectance (relative to Spectralon)
200
300
400
500
600
700
800
wavelength (nm)
1055B new, unprinted back
1055B new, printed back
1055B old
1025D
1056D