


Commonly used materials for the manufacture of clamshell and two piece food containers.

| Material Type  |  |  |   |
|--|--|--|---|
|  | <b>PET</b>  | <b>OPS</b>  | <b>PP</b>  |
| <b>Material</b>  | Polyethylene   | Polystyrene  | Polypropylene   |
| <b>Clarity</b>   | Excellent  | Excellent  | Good  |
| <b>FDA Compliant to</b>  | CFR 21 #177.1630   | CFR 21 #177.1640   | CFR 21 #177.1520  |
| <b>Specific Gravity (g/cc)</b>                                       | 1.33   | 1.05   | 0.9   |
| <b>Temperature Range<sup>(1)</sup></b>                               | 0°F – 140°F  | 20°F – 170°F   | 0°F – 220°F   |
| Barrier Properties   |  |  |   |
| <b>Water Vapor</b>   | Good   | Fair   | Excellent   |
| <b>Gas</b>   | Excellent  | Fair   | Excellent   |
| <b>Oxygen Transmission Rate (CC/100 in<sup>2</sup> - 24hr - atm)</b> | 5 - 15   | 350  | 150 - 220   |
| Chemical Resistance  |  |  |   |
| <b>Acids</b>   | Good   | Good   | Good  |
| <b>Strong Oxidizing Acids</b>  | Excellent  | Poor   | Excellent   |
| <b>Alkalies</b>  | Fair   | Excellent  | Excellent   |
| <b>Hydrocarbon Solvents</b>  | Excellent  | Poor   | Good to Excellent   |
| <b>Alcohols</b>  | Excellent  | Excellent  | Excellent   |
| <b>Fat, Grease &amp; Oil</b>   | Excellent  | Good   | Good  |
| <b>Sugars, Syrups</b>  | Excellent  | Excellent  | Excellent   |
| Temperature Tolerance  |  |  |   |
| <b>Blast Freezer</b>   | Poor   | Poor   | Poor  |
| <b>Freezer</b>   | Good   | Fair   | Good  |
| <b>Refrigerated</b>  | Excellent  | Very Good  | Excellent   |
| <b>Heat Lamps</b>  | Poor   | Good   | Excellent   |
| <b>Microwave</b>   | Poor   | Fair   | Good  |
| <b>Oven</b>  | Not Recommended  | Not Recommended  | Not Recommended   |

<sup>(1)</sup> Temperature specifications may vary depending on components used to make raw materials.

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