

## Polypropylene Aramco PP HP40G

### Product Description

Aramco PP HP40G is a homopolymer polypropylene resin and is typically used for yarn extrusion. Yarn made from this resin typically exhibits high denier strength, high anti splitting and low heat shrinkage.

### Typical Applications

Woven sacks, woven cloths, monofilament, binding tape, thermoforming.

This product is not intended for use in medical and pharmaceutical applications.

| Physical Properties                        | Unit              | Test Method        | Value <sup>(1)</sup> |
|--------------------------------------------|-------------------|--------------------|----------------------|
| Melt Flow Index (230°C/2.16kg)             | g/10min           | ASTM D1238         | 4.0                  |
| Density                                    | g/cm <sup>3</sup> | ASTM D792 Method A | 0.9                  |
| <b>Mechanical Properties<sup>(2)</sup></b> |                   |                    |                      |
| Tensile Strength at Yield                  | MPa               | ASTM D638          | 32                   |
| Tensile Elongation at Yield                | %                 | ASTM D638          | 9                    |
| Tensile Strength at Break                  | MPa               | ASTM D638          | 18                   |
| Tensile Elongation at Break                | %                 | ASTM D638          | 110                  |
| Flexural Modulus                           | MPa               | ASTM D790          | 1300                 |
| Izod Impact, Notched 23 °C                 | kJ/m <sup>2</sup> | ASTM D256          | 3.0                  |
| Hardness Rockwell                          |                   | ASTM D785          | 99                   |
| <b>Thermal Properties<sup>(2)</sup></b>    |                   |                    |                      |
| Vicat Softening Temperature @10N           | °C                | ASTM D1525         | 152                  |

(1) Typical values only, not to be construed as specification limits

(2) Test specimen preparation method : Pursuant to ASTM D4101

**Processing conditions:** Recommended extrusion temperature : 250 °C

Recommended stretching temperature : 155 °C

Recommended stretching ratio : 4 – 6

**Storage and handling:** Aramco PP HP40G should be stored in a dry cool place with adequate ventilation and protected from UV-light at temperature below 50 °C

**Food Contact and other Regulations:** Aramco PP HP40G resins are suitable for food contact applications. Detailed information is provided in Material Safety Datasheet and for additional specific information, please contact Saudi Aramco Products Trading Company for certificates.



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