

## Material Solutions for the Appliance Industry

Washing machines, dishwashers, refrigerators or ranges, home and commercial appliances must be energy-efficient, quiet, easy to maintain and equipped with the latest safety and diagnostic features.

Continually evolving efficiency standards challenge product designers to improve sealing performance, vibration management and protect key electronics that control these systems.



Rogers offers a wide range of material solutions to meet these ever-changing requirements.

Applications include:

- Spacers, spring applications, foam gasket strips in dishwashers and washing machines
- Window gaskets and oven door gaskets in ranges, stoves and ovens
- Motor vibration damping, mating of uneven surfaces, leak protection in refrigerators
- Display screen gaskets in smart refrigerators, and other various display screens
- Canister and motor gaskets in vacuum cleaners
- Foot pads in small appliances
- Environmental sealing in various appliances

|                                       | <i>Application</i>                                                             | <i>Problem</i>                                                               | <i>Solution</i>                                          | <i>Benefit</i>                                                                                                                                          |
|---------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Refrigerator Chill Seal</b>        | Gasketing/Sealing: Seal ductwork connection between freezer and refrigerator   | Poor air seal causes uncontrolled refrigerator temperature                   | PORON® 4701-50 Firm polyurethane                         | Effective sealing improves refrigerator efficiency                                                                                                      |
| <b>Front Oven Support</b>             | Gap Filling: Fill gap in high-end model bowed oven door                        | Fill gap and allow for thinner gauge steel to be used                        | PORON® 4790-92 Extra Soft Slow Rebound polyurethane      | Maintains thickness over time, provides long term performance, design flexibility reduces cost                                                          |
| <b>Dishwasher Rinse Aid Tank Seal</b> | Gasketing/Sealing: Provide seal between rinse aid tank and door                | Prevent rinse aid and water from leaking into door                           | PORON® 4701-30 Very Soft polyurethane                    | Protects door from water damage for a period of 7-10 years (based on customer data)                                                                     |
| <b>Oven / Range Seal</b>              | Gasketing/Sealing: Provide window seal                                         | Prevent heat or moisture from leaking through window                         | BISCO® BF-2000 (foam) or BISCO® HT-1250 (solid) silicone | Provides additional layer of protection. BISCO® silicone materials resist degradation from chemicals as well as heat degradation (up to 482 °F/ 250 °C) |
| <b>Refrigerator Compressor</b>        | Thermal Solutions: Compressor heat shield                                      | Heat shield needed to improve performance of compressor                      | BISCO® RF-120 Reflective Silicone heat shield            | Lowers overall power consumption of the refrigerator                                                                                                    |
| <b>Robot Vacuum Pad</b>               | Vibration Management: Gasket/pad for dust collector bin                        | Manage bin vibration and slipping                                            | Griswold® Cellular Rubber                                | High surface friction keeps components in place and offers vibration management                                                                         |
| <b>Commercial Appliance Foot Pads</b> | Vibration Management: Foot pads for small appliances                           | Keep unit in place, manage vibration                                         | Griswold® Grip-ON™ Rubber                                | High surface friction keeps unit stationary and provides vibration management                                                                           |
| <b>LCD Display Gasket</b>             | Gasketing/Sealing: Seal LCD display for next-generation appliances             | Poor display sealing can lead to particulate contamination and light leakage | PORON® 4701 Firm polyurethane                            | Superior resistance to compression and a wide range of CFD enables long term reliability and design flexibility                                         |
| <b>Dryer Door Drum</b>                | Friction Reduction: Provide rotational bearing and support for dryer door drum | Dryer friction can generate loud noises and cause damage to the appliance    | DeWAL® Dynaglide family of products                      | Filled PTFE addresses a wide range of friction/wear applications as well as a variety of mating surfaces                                                |

