

## Refrigerator (with Icemaker)



### Equipment Description

Combination refrigerator-freezers are designed to maintain safe food storage at 37°F in the refrigerator compartment and 5°F in the freezer section. Icemakers are sometimes incorporated into the freezer. The icemaker is connected to a water line, which enables the freezer to automatically produce ice cubes.

### Loss Scenario

A common issue with refrigerators occurs when the temperature rises in refrigerator section above set point causing rapid discoloration, or obvious smell of food products. The freezer section will also have evidence of softening of frozen food products. This can be an indicator of a thermostat problem (failure or improper setting) or compressor or fan failure.

Failure of the icemaker to produce ice is another common problem. This often indicates that water is not getting to the icemaker unit due to a kinked or frozen fill tube, a bad tap valve, or a defective solenoid. A professional repair technician may be needed to fix these problems.

### Size and Carbon Footprint

New high-efficiency refrigerators have an estimated annual electricity use of 500 kilowatt-hours (kWh) per year, which results in production of approximately 760 pounds of carbon dioxide (CO<sub>2</sub>).

### Maintenance Tips

- The most common problem is the buildup of dust and grime on the heat rejection coils. These coils are usually located outside of the refrigerator at the back or underneath. Remove dust with a light brush and grime with soft dampened cloth, to improve cooling capability and reduce operating costs.
- Check the door seals by sliding a piece of paper in the door. If it falls out replace the door seals.
- Clean the interior surfaces with white vinegar and wipe dry to remove mold and mildew.
- Manually defrost freezer twice per year (or if one-quarter inch of ice builds up).

### Loss Prevention Tips

- Keep freezer at least 50 percent full of frozen foods to minimize frequent starting and stopping of motor.
- Cover leftover foods to reduce refrigerator run times. Moisture from these foods increases refrigeration loads and energy use.

### Replacement Tips

- Side-by-side refrigerator freezers use more energy and have less useable storage space than top and bottom units.
- Through the door features, like cold water and ice dispensers use up to 20 percent more energy.
- Two refrigerators half empty use much more energy than one full
- Look for innovations such as light emitting diode (LED) lighting that use less energy, contributes less heat to the space and has a longer life.
- Look for the Energy Star label, to insure your energy costs are minimized.