CLAIM(S):

1. A method of preparing a polishing pad comprising: (a) providing a polymer sheet into a vessel, wherein the polymer sheet is monolithic and has two opposing surfaces; and (b) introducing inert gas into the polymer sheet in the vessel under conditions sufficient to form a porous surface region adjacent to at least one of the surfaces and to form a core region that is substantially non-porous, wherein the surface region is formed on each side of the core region such that a first surface region forms at least part of one of the two opposing parallel surfaces of the polishing pad and a second surface region forms at least part of the other of the two opposing parallel surfaces of the polishing pad, and wherein the method further comprises cutting the core substantially along a horizontal axis to form two polishing pads.

2. The method of claim 1, wherein the inert gas comprises carbon dioxide.

3. The method of claim 1, wherein an outer skin layer is formed on the polymer sheet adjacent to the surface region opposite the core region, and wherein the method further comprises removing the skin layer to expose the surface region suitably for contact with a workpiece.

4. The method of claim 1, wherein the skin layer is removed by buffing, skiving, and/or milling.

5. The method of claim 1, wherein the porous surface region is formed adjacent to both opposing surfaces.

6. The method of claim 1, wherein the porous surface region is formed adjacent to only one of the opposing surfaces.

7. The method of claim 1, wherein the inert gas is introduced while the polymer is subjected to a temperature of from about 0°C to about 40°C for about 72 hours or less.

8. The method of claim 1, wherein the inert gas is introduced while the contents of the vessel are subjected to pressure of from about 1000 kPa to about 3500 kPa for about 72 hours or less.

9. The method of claim 8, further comprising reducing the pressure in the vessel to a value from

about 100 kPa to about 0 kPa for about 5 minutes or less, and increasing the temperature in the vessel to a value from about 100°C to about 175°C for about 2 minutes or less.

10. The method of claim 1, wherein the introduction of inert gas comprises: subjecting the polymer sheet in the vessel to a temperature of from about 0°C to about 40°C and a pressure of from about 1000 kPa to about 3500 kPa for about 72 hours or less, to dissolve inert gas in the polymer; then decreasing the pressure to which the polymer sheet is exposed to from about 100 kPa to about 0 kPa for about 5 minutes or less; and then increasing the temperature to which the polymer sheet is exposed to from about 100°C to about 175°C.

11. The method of claim 1, further comprising providing grooves onto an exterior surface of the pad.