WHAT IS CLAIMED IS:

1. A full-face flare joint for a polytetrafluoroethylene (PTFE) lined piping system, comprising:

a connector portion of a metal piping being flared radially outwardly at a predetermined angle to form a pipe lap having a first surface and a second surface, wherein the first surface is configured to engage a pipe flange;

a PTFE pipe lining extending out of the connector portion, wherein the pipe lining is flared radially outwardly over the second surface of the pipe lap thereby forming a liner flare; and

a backing-corner component placed between the second surface of the pipe lap and the liner flare, wherein the liner flare forms an angle of about 90º.