What is Claimed Is:

1. A process for preparing a compounded polyamide from a molten polyamide feedstock, the process comprising:

preparing by a batch polymerization process or a continuous polymerization process a polyamide feedstock in a molten state;

introducing the molten polyamide feedstock directly to one or more extruders at a consistent rate, the extruder containing at least 2 vent ports, where at least one of the at least 2 vent ports is subjected to vacuum conditions and where all vacuum conditions in the extruder are applied consistently; and

mixing and/or blending the molten polyamide feedstock with one or more materials to provide the compounded polyamide,

wherein a range of relative viscosity (RV) between samples of the compounded polyamide prepared by the polymerization process is less than 3 units, and

wherein the compounded polyamide during an injection molding process shows no burning in an injection mold after 600 shots.

2. The process according to claim 1, wherein the molten polyamide feedstock is a molten nylon66 feedstock.

3. The process according to claim 1, wherein the extruder is a twin-screw extruder.

4. The process according to claim 3, wherein the twin-screw extruder contains at least 3 vent ports and a portion of the at least 3 vent ports are subjected to vacuum conditions.

5. The process according to claim 1, wherein two of the at least 2 vent ports are subjected to vacuum conditions.

6. The process according to claim 3, wherein the twin-screw extruder has a length to diameter ratio of the screw shaft in the range of 24:1 to 56:1.

7. The process according to claim 3, wherein the twin-screw extruder has a length to diameter ratio of the screw shaft in the range of 36:1 to 48:1.

8. The process according to claim 1, wherein only a portion of the molten feedstock is sent directly to the one or more extruders.

9. The process according to claim 1, wherein the materials comprise one or more fibers, waxes, minerals, chain terminators, viscosity modifiers, plasticizers, heat stabilizers, UV stabilizers, colorants, catalysts, flame retardants, delusterants, fillers, reinforcing agents, antimicrobial agents, antistatic agents, optical brighteners, extenders and processing aids.

10. The process according to claim 1, wherein the polymer polymerization process occurs less than 50 feet from the one or more extruders.

11. The process according to claim 1, wherein the range of relative viscosity (RV) between samples of compounded polyamide prepared by the polymerization process is less than 2 units.

12. The process according to claim 1, wherein the range of relative viscosity (RV) between samples of compounded polyamide prepared by the polymerization process is less than 1 unit.

13. A plurality of compounded polyamide samples prepared by the process of claim 1, wherein a range of relative viscosity (RV) between the plurality of compounded polyamide samples is less than 3 units.

14. The plurality of compounded polyamide samples according to claim 13, wherein each compounded polyamide sample of the plurality of compounded polyamide samples has a plate-out value of less than 2.0 mg/1,000 shots.

15. The plurality of compounded polyamide samples according to claim 14, wherein the each compounded polyamide sample has a plate-out value of less than 1.0 mg/1,000 shots.

16. The plurality of compounded polyamide samples according to claim 13, wherein the range of relative viscosity (RV) between the plurality of compounded polyamide samples is less than 2 units.

17. The plurality of compounded polyamide samples according to any one of claims 13 to 16, wherein the plurality of compounded polyamide samples are compounded nylon66 samples.