

Figure 1: Trends of the kinematic viscosity (KV) versus high-temperature high-shear viscosity (HTHS) at 100°C in working examples 1 to 5 of state of the art document US 2010/0190671 versus working examples of the present invention.

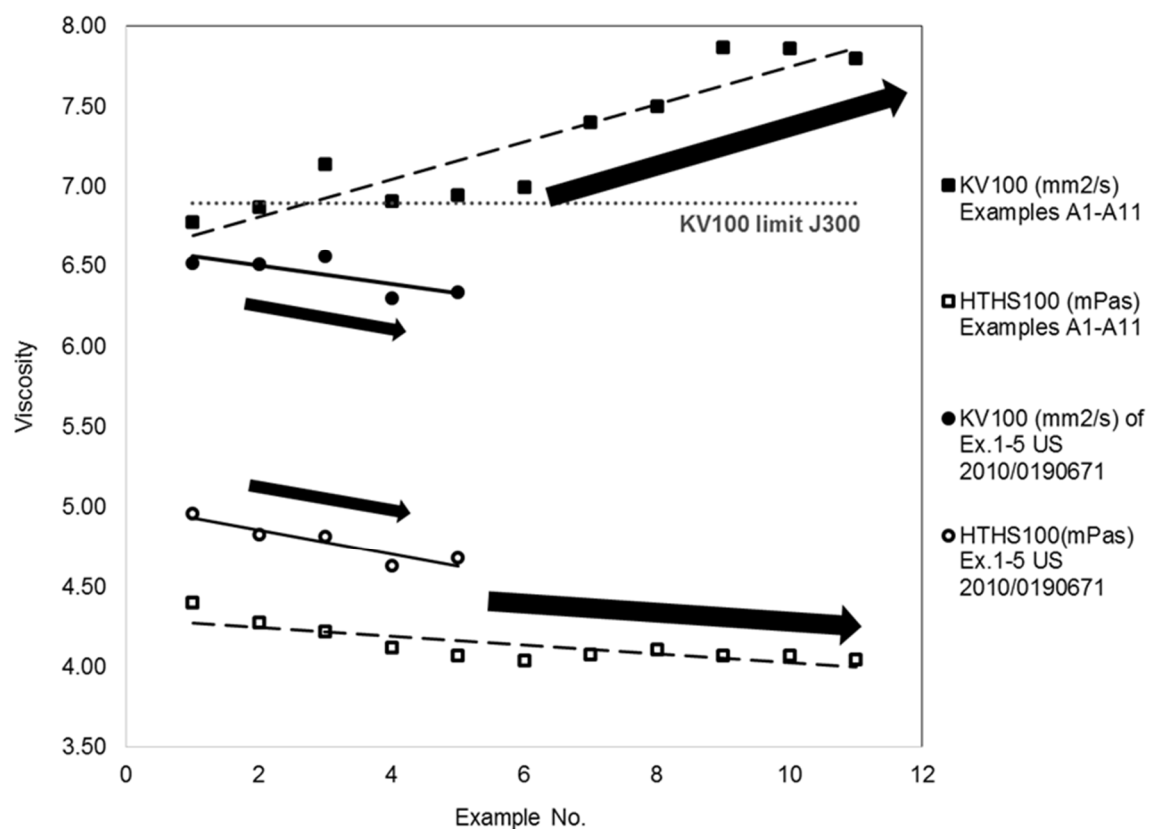


Figure 2: GPC results showing the shift in molecular weight distributions towards higher molecular weight of polymer A17 prepared according to the present invention versus comparative example A14.

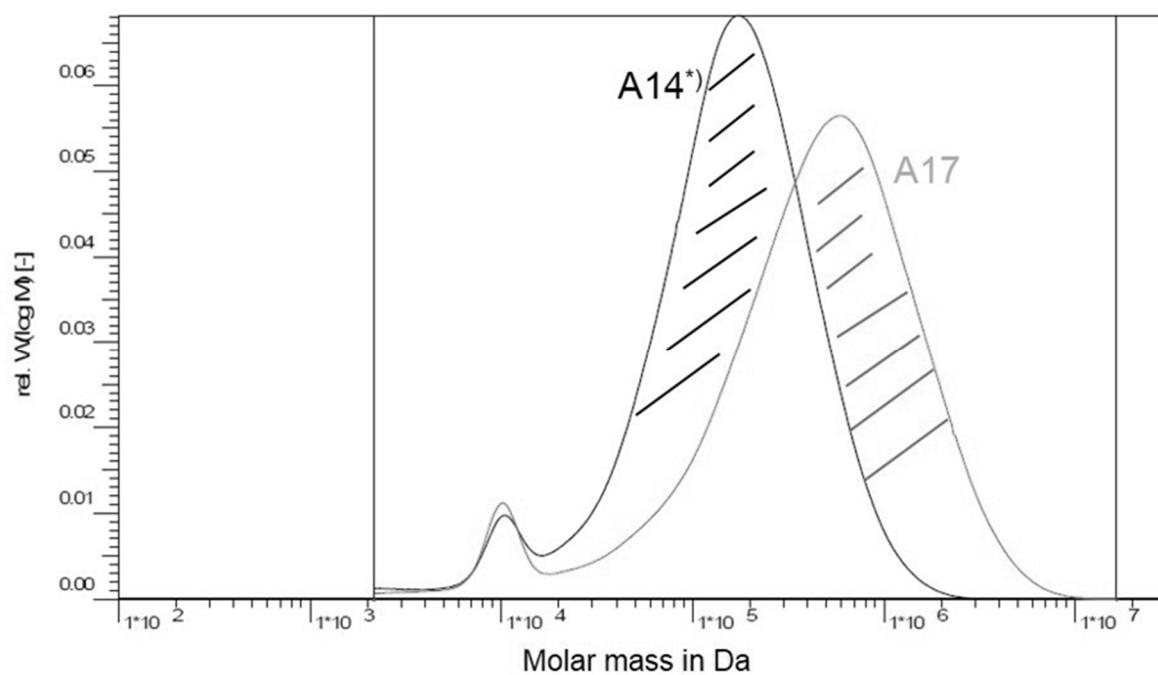


Figure 3: The relative thickening contribution (RTC) varying with increased weight-average molecular weight M_w .

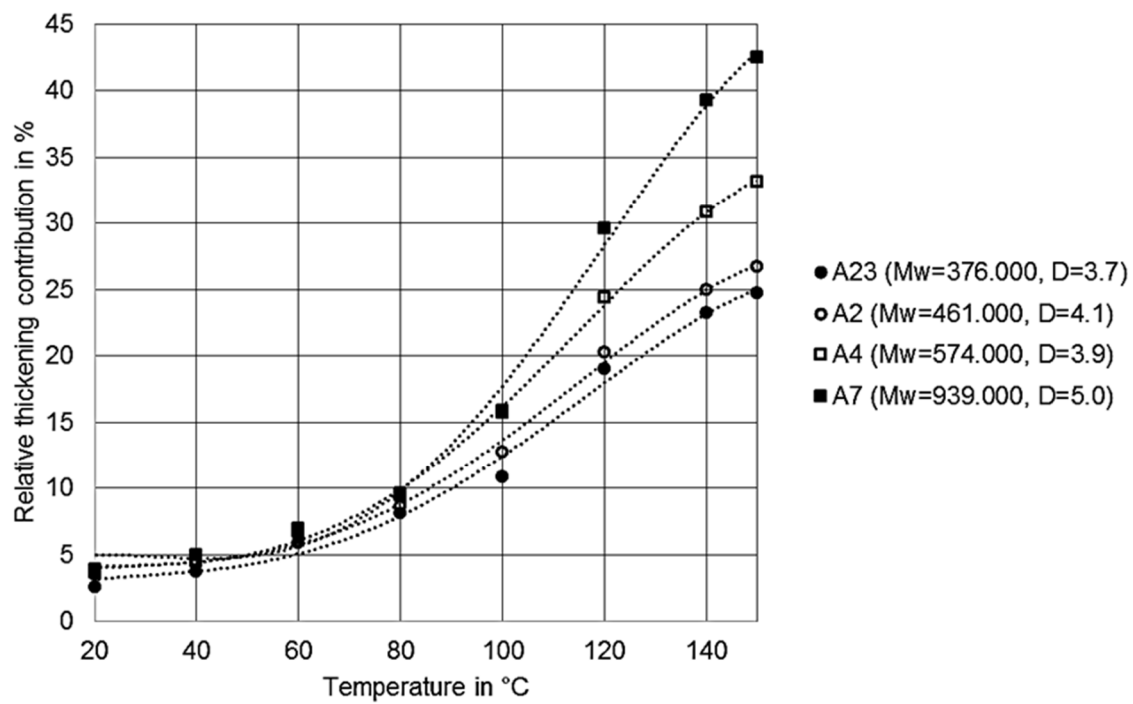


Figure 4: Molecular weight (M_w and M_n) versus HTHS_{100} of examples A5 to A11 and comparative examples A1 to A3 in a 0W20 formulation.

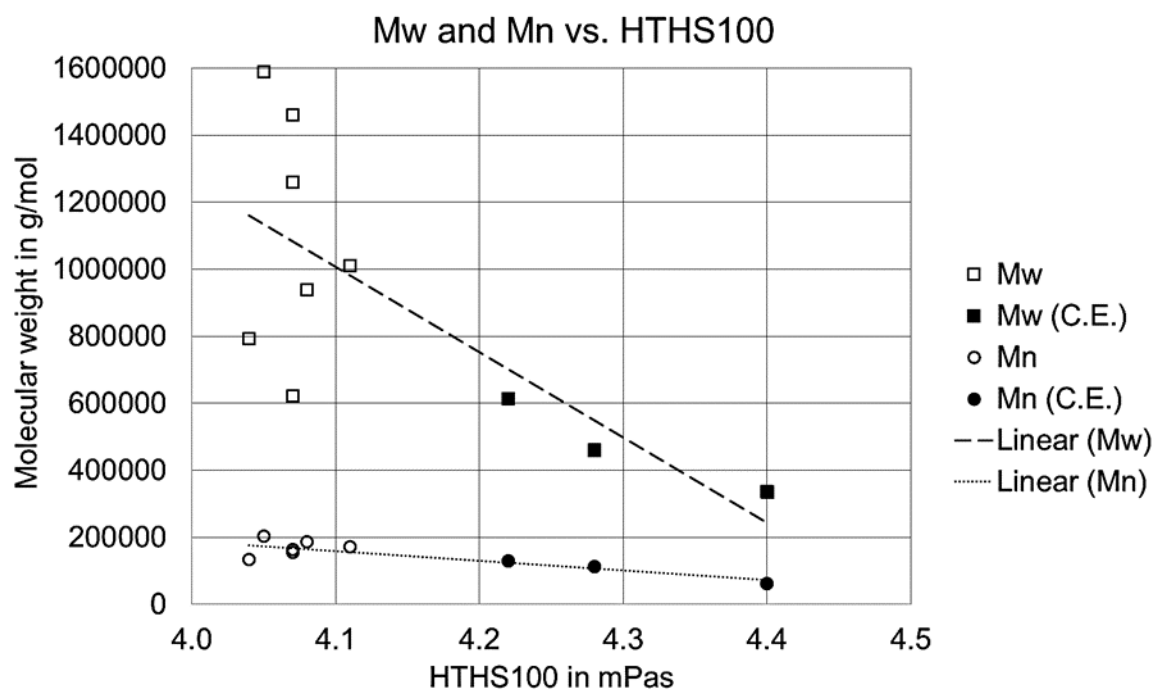


Figure 5: Molecular weight (M_w and M_n) versus HTHS_{80} of examples A5 to A11 and comparative examples A1 to A3 in a 0W20 formulation.

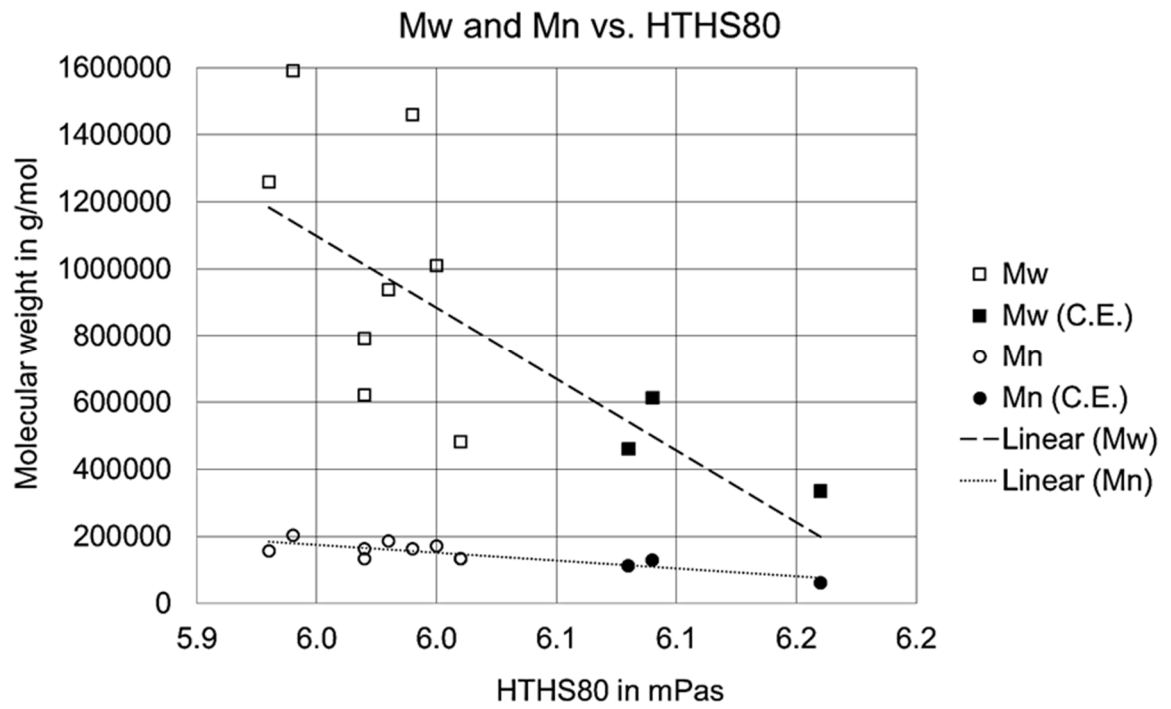


Figure 6: Molecular weight (M_w and M_n) versus HTHS_{80} of examples and comparative examples, where 2 examples with almost similar M_w and slightly different M_n are highlighted.

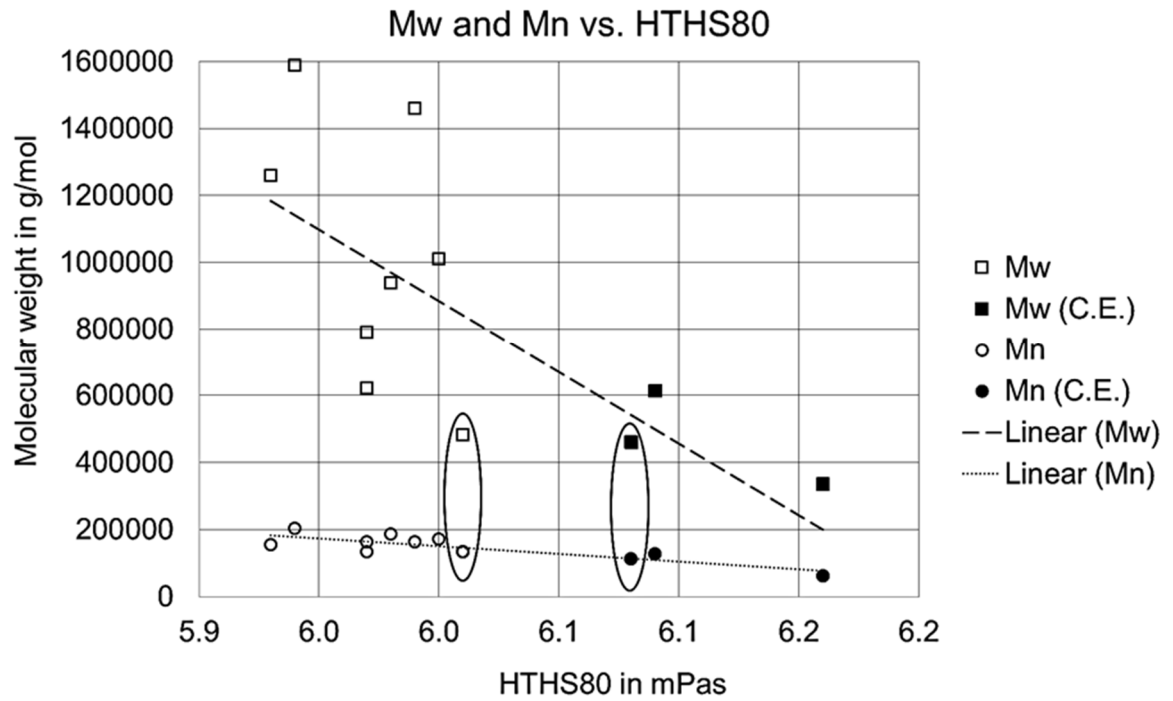


Figure 7: HTHS₁₀₀ is plotted versus the factor P, which is calculated from M_w and M_n in order to evaluate promising molecular weight distributions (Examples A2, A3 and A5-A11).

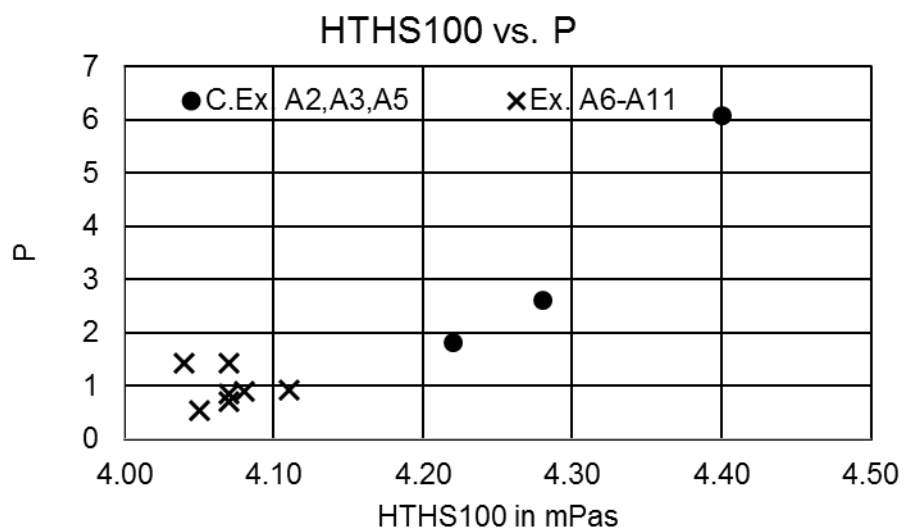


Figure 8: HTHS₈₀ is plotted versus the factor P, which is calculated from M_w and M_n in order to evaluate promising molecular weight distributions (Examples A2, A3 and A5-A11).

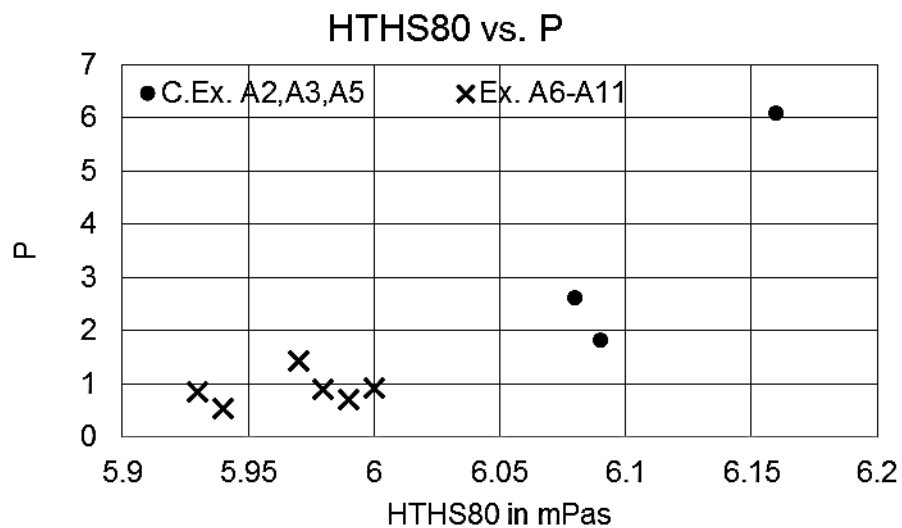


Figure 9: HTHS₁₀₀ is plotted versus the factor P, which is calculated from M_w and M_n in order to evaluate promising molecular weight distributions (Examples A12 and A14-A19).

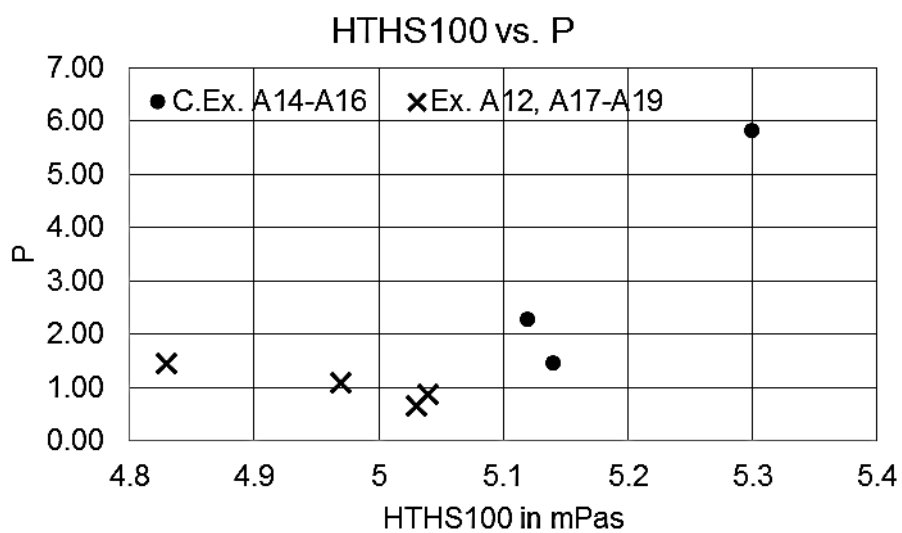


Figure 10: HTHS₈₀ is plotted against the factor P. P values equal to or below 1.5 resulted in the best (lowest) HTHS₈₀ values (Examples A12 and A14-A19).

