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**Modification of H950 condition for 17-4 PH stainless steel processed by DED**

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The current study embarked on developing the H950 aging condition for 17-4 PH stainless steel that was manufactured through the DED process. The driving force for carrying out this study was that, when the H950 condition was applied to 17-4 PH that was processed by DED, then the mechanical properties were not similar to those of 17-4 PH (as-received) manufactured through the traditional method. The printing of tensile specimens was done using the LENS technique. Subsequently, the specimens were subjected to homogenization treatment (1100 °C for 2 h followed by air cooling) and aging treatment at A, B, and C °C for a specific period followed by air cooling. Additionally, a material characterization which includes porosity evaluation mechanical properties testing, and microstructural evolution analysis was done. It was established that the specimens were 99.9% denser and A °C was the aging temperature that produced specimens with mechanical properties similar to the as-received specimens.