NITRILE BUTADIENE RUBBER (NBR)

NBR or Nitrile Butadiene Rubber is a copolymer of acrylonitrile and butadiene. The acrylonitrile amount is generally between 18 and 50% and has a great influence on the swelling resistance, elasticity, gas permeability and flexibility at low temperatures of the elastomer. The flexibility at low temperature gets worse when the acrylonitrile amount increases. An important property for automotive applications is the glass transition temperature of NBR.

Results
The endothermic change in specific heat detected at -26.8°C (midpoint) in both heatings results from the glass transition of the elastomer.