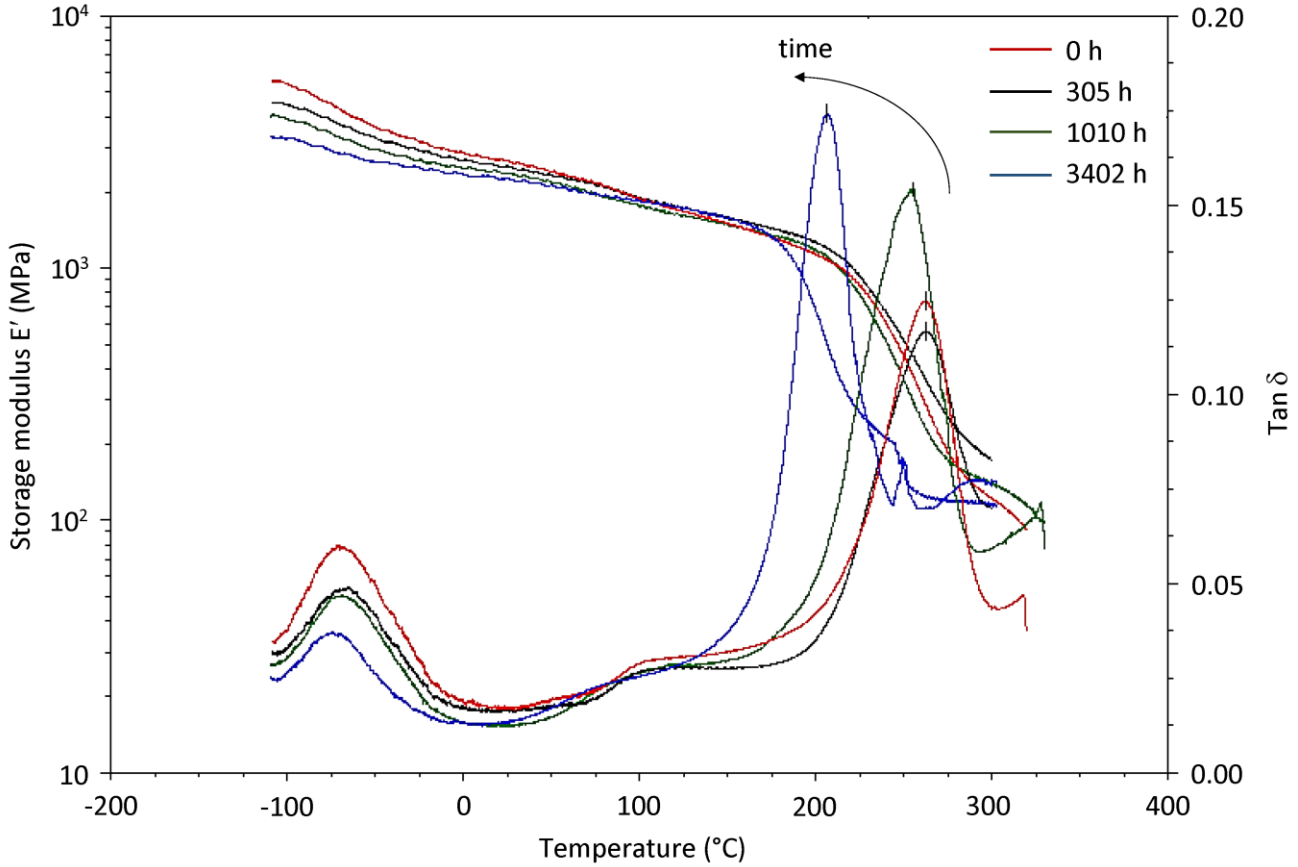
Supplementary Material

SUPPLEMENTARY TABLE S1 | List of symbols.

Symbol	Description
b	Constant
β	Reciprocal value of C_C
C	Oxygen concentration
C_C	Critical oxygen concentration (delimiting oxygen default from excess)
ε	Molar extinction coefficient
ep	Sample thickness
E′	Storage modulus
E″	Loss modulus
E^*	Complex modulus
f	Crosslink node functionality
F	Flex parameter
γ_i	Formation yield of a given chemical species in elementary reaction i)
K	Apparent first-order rate constant
K_{DM}	Di Marzio's constant
k_i	Rate constant of elementary reaction i)
n	Concentration of crosslink nodes
ν	Concentration of elastically active chains
OD	Optical density in infra-red spectrum
O_2	Oxygen
$P^{\bullet}$	Alkyl radical

PH	Oxidation site
P=O	Carbonyl species
P_{O2}	Oxygen partial pressure in the exposure environment
$PO_2^{\bullet}$	Peroxy radical
POOH	Hydroperoxide
Q	Oxygen consumption
r	Rate of a given chemical event
r_0	Steady rate in oxygen excess of a given chemical event
r_∞	Steady rate in general case of a given chemical event
S	Concentration of chain scissions
S_{O2}	Oxygen solubility into polymer
X	Concentration of crosslinking events
t	Time
t_F	Lifetime
T	Temperature
T_g	Glass transition temperature
T_{gF}	End-of-life criterion
T_{gl}	Glass transition temperature of an hypothetical linear polymer
[ ]	Concentration of a given chemical species
$[\ ]_0$	Initial concentration of a given chemical species
$[\ ]_\infty$	Steady concentration of a given chemical species



SUPPLEMENTARY FIGURE S1 | Examples of changes in the DMA thermogram of network No. 3 (Tactix 123/Tactix 742-DDS) during its thermal ageing at 200°C under 0.21 bar of oxygen (i.e., ambient air).