

**Figure S1.** List of epoxy prepolymers in the study.

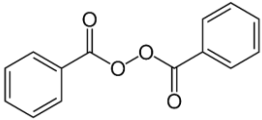
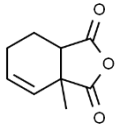
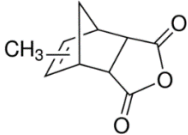
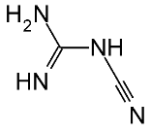
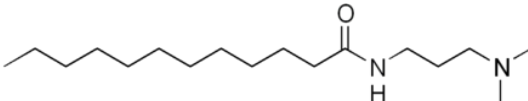
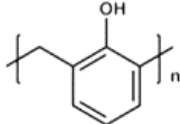
Name and details	Chemical structure
<u>DGEBA</u> Bisphenol A diglycidylether	
<u>DGEBF</u> Bisphenol F diglycidylether	
<u>DGEBD</u> Butanediol diglycidyl ether	
<u>ESO</u> Epoxidized soybean oil	
<u>mTGAP</u> m-triglycidylaminophenol	

Name and details	Chemical structure
<u>Novolac epoxy</u>	Example: Epoxidised cresol novolac 
<u>Rubber-modified epoxy</u>	-
<u>TCDAM</u> Diaminotetrachlorodiphenylmethane	
<u>TGDDM</u> Tetraglycidyl methylenedianiline	

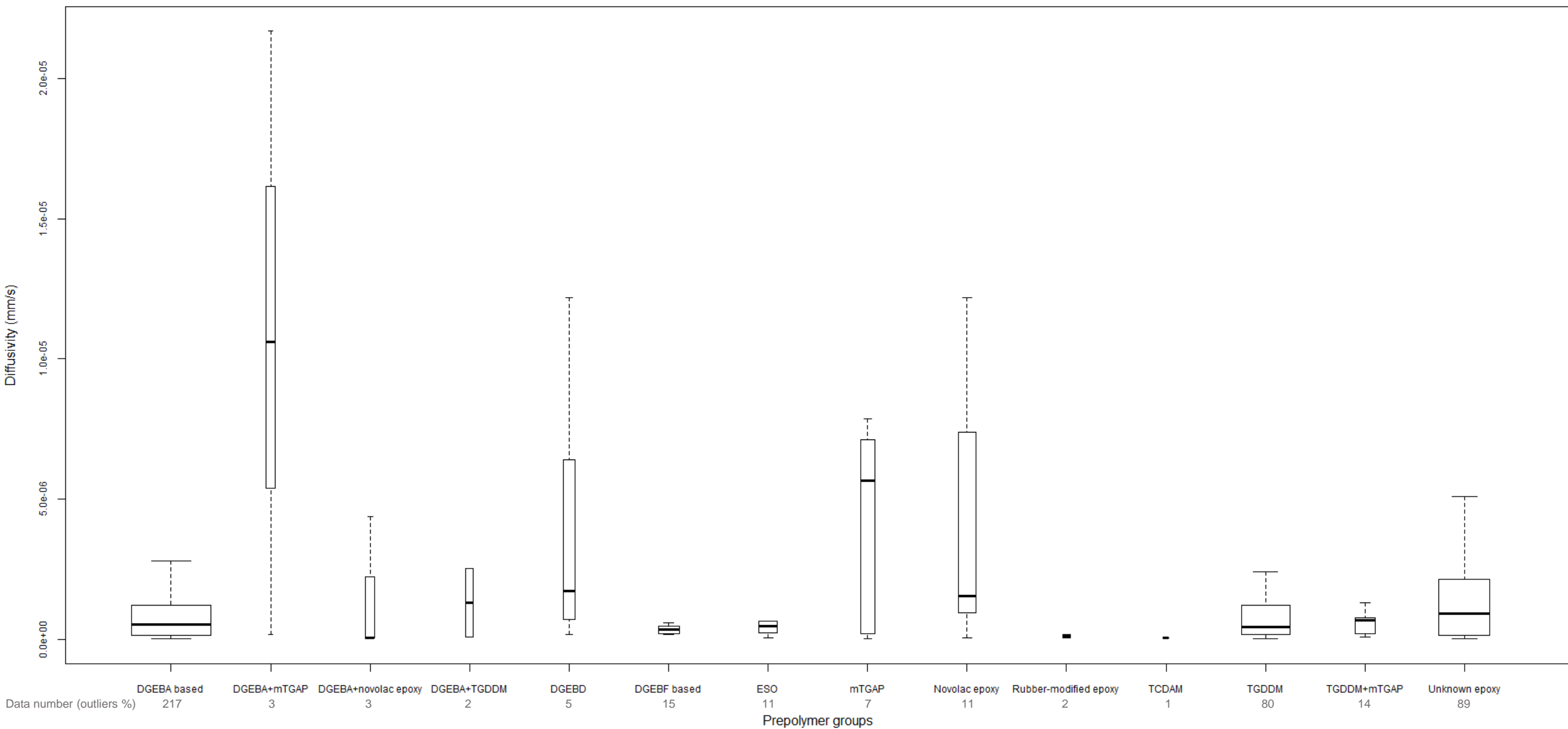
**Figure S2.** List of hardeners in the study (1/2).

Group	Name and details	Chemical structure	Group	Name and details	Chemical structure
Aliphatic amines	<u>DETA</u> Diethylenetriamine		Aromatic amines	<u>DDS</u> Diaminodiphenylsulfone	
	<u>TETA</u> Triethylenetetramine			<u>DDM</u> Diaminodiphenylmethane	
	<u>EDA</u> Ethylene diamine			<u>MPD</u> Diaminobenzene	
	<u>Polyoxypropylenediamine</u>			<u>MDEA</u> Methylenebisdiethylaniline	
	<u>TAEA</u> Trisaminoethylamine			<u>M-MIPA</u> Methylenebisisopropylmethylaniline	
Cycloaliphatic amines	<u>IPDA</u> Isophorone diamine			<u>Aniline</u>	
	<u>DACH</u> Diaminocyclohexane			<u>DETDA</u> Diethyltoluenediamine	
	<u>Aminoimidazoline</u>			<u>mPDA</u> Metaphenylenediamine	
				<u>POEA</u> Polyoxyalkyleneamine	
				<u>Xylylene amine</u>	

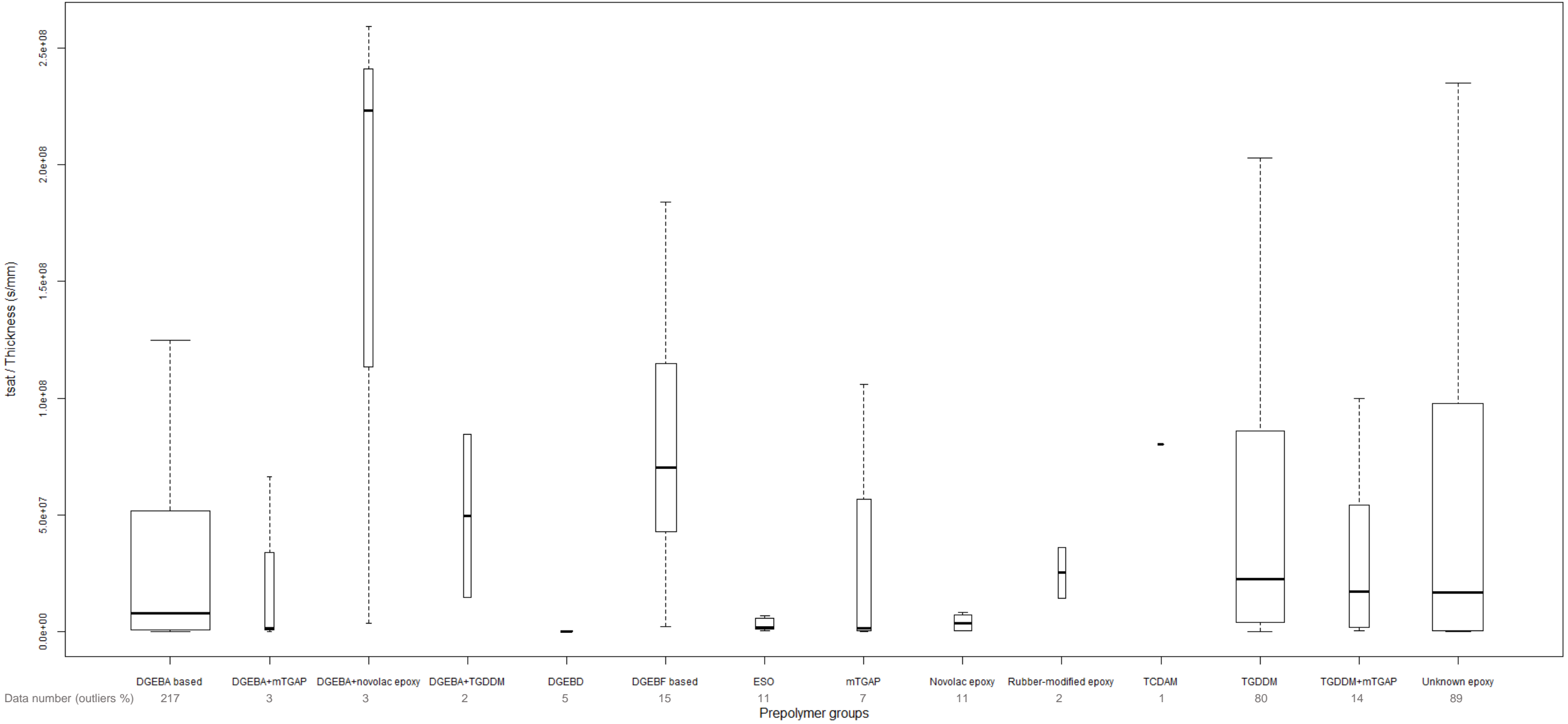
**Figure S2.** List of hardeners in the study (2/2).

Group	Name and details	Chemical structure
Anhydride acid	<u>Dibenzol peroxide</u>	
	<u>MHHPA</u> Methyltetrahydrophthalic anhydride	
	<u>MNA</u> Methylnorbornenedicarboxylic anhydride	
Dicyan- diamide	<u>DDA</u> Dicyandiamide	
Amido amine	<u>Amidoamine</u>	Example: Lauramidopropyldimethylamine 
Phenol Novolac	<u>Phenol Novolac</u>	Example: Phenol-formaldehyde novolac 

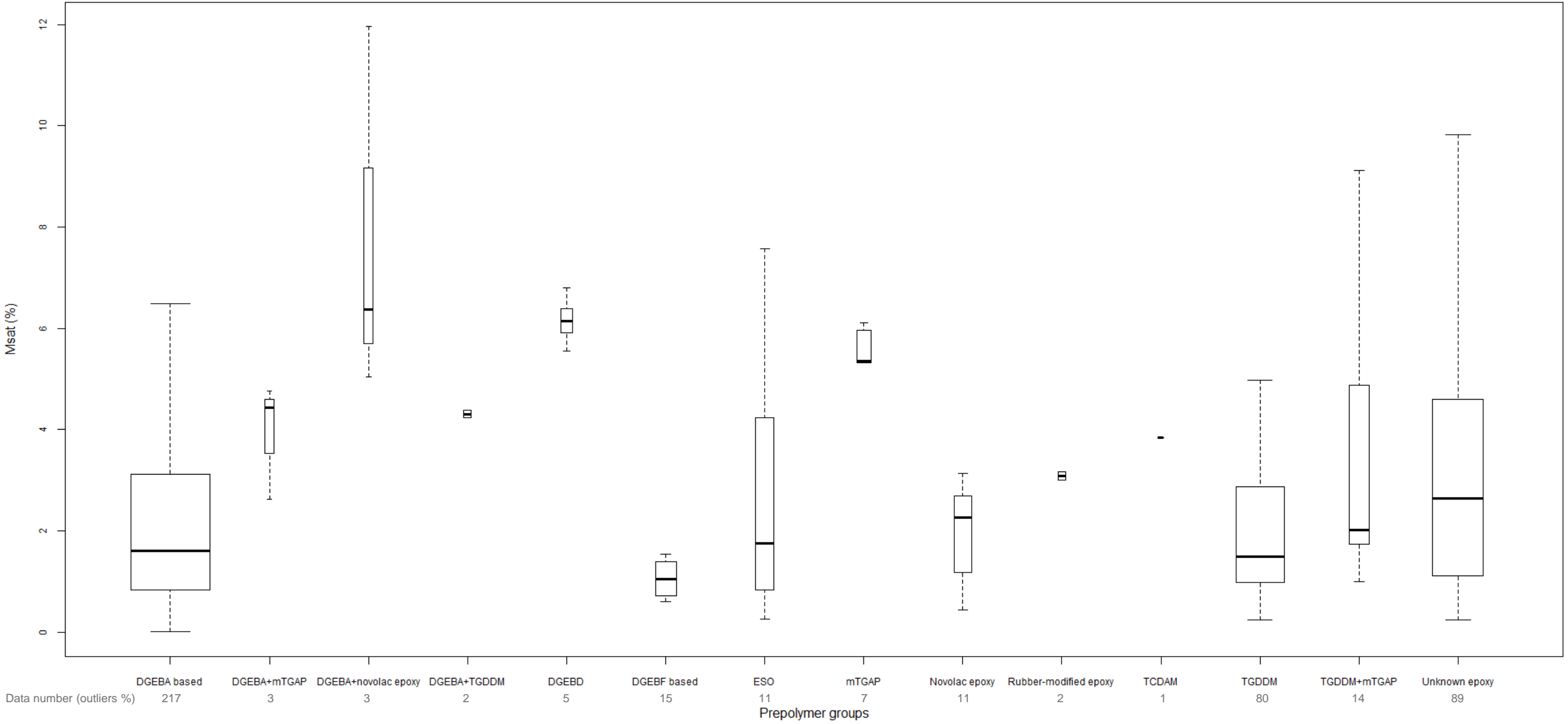
**Figure S3.** Boxplots of  $D$  as a function of epoxy prepolymer type.



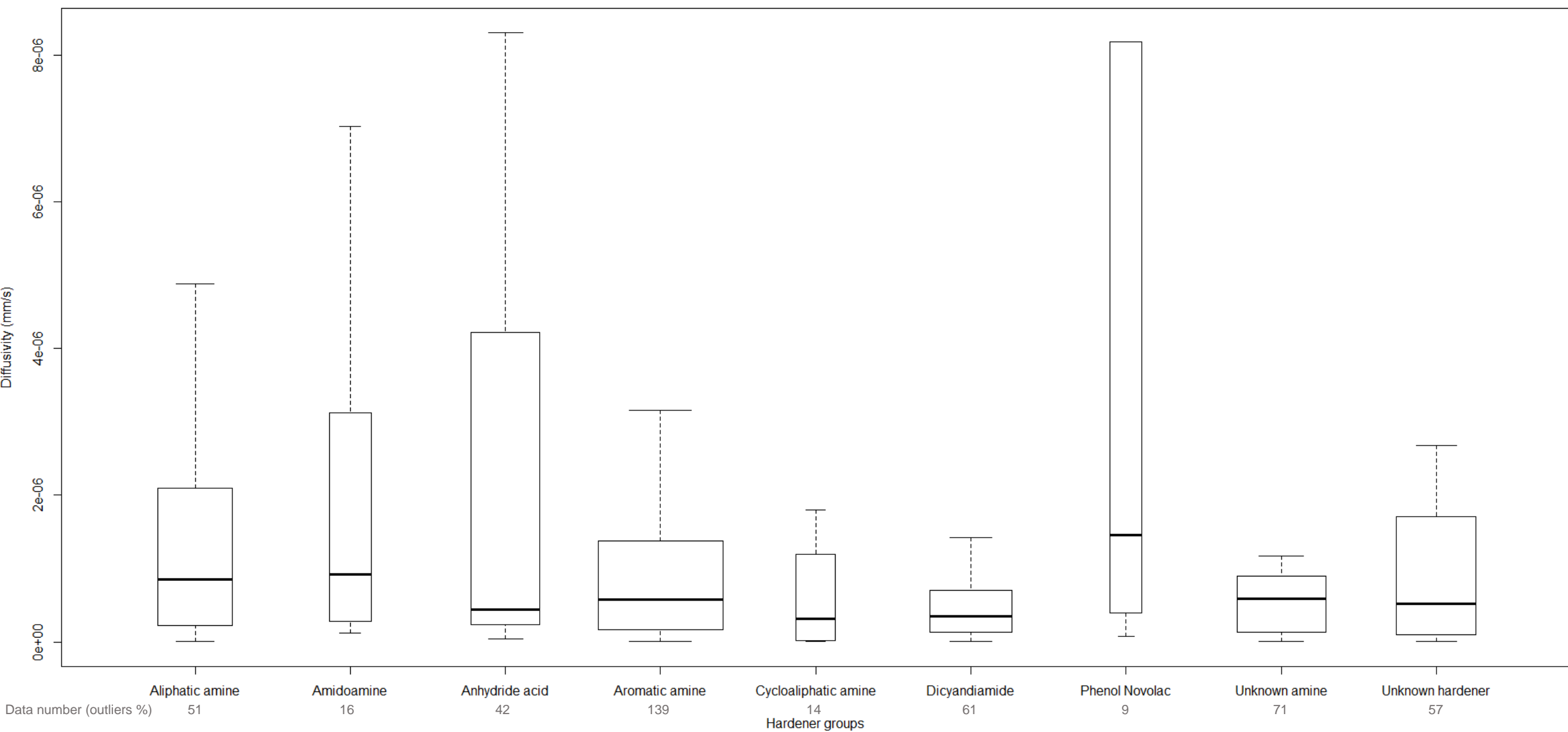
**Figure S4.** Boxplots of  $t_{sat}/h$  as a function of epoxy prepolymer type.



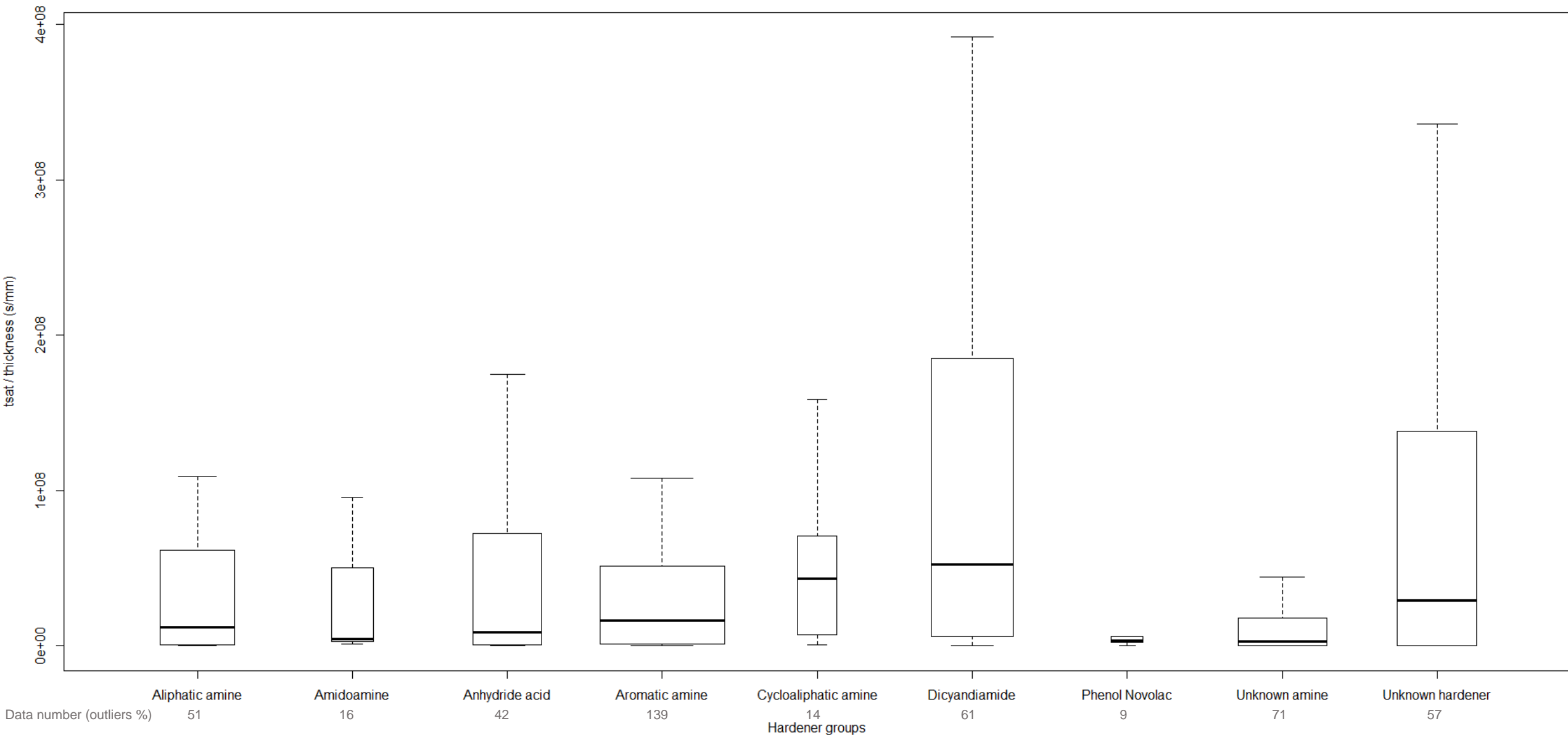
**Figure S5.** Boxplots of  $M_{sat}$  as a function of epoxy prepolymer type.



**Figure S6.** Boxplots of  $D$  as a function of hardener type.

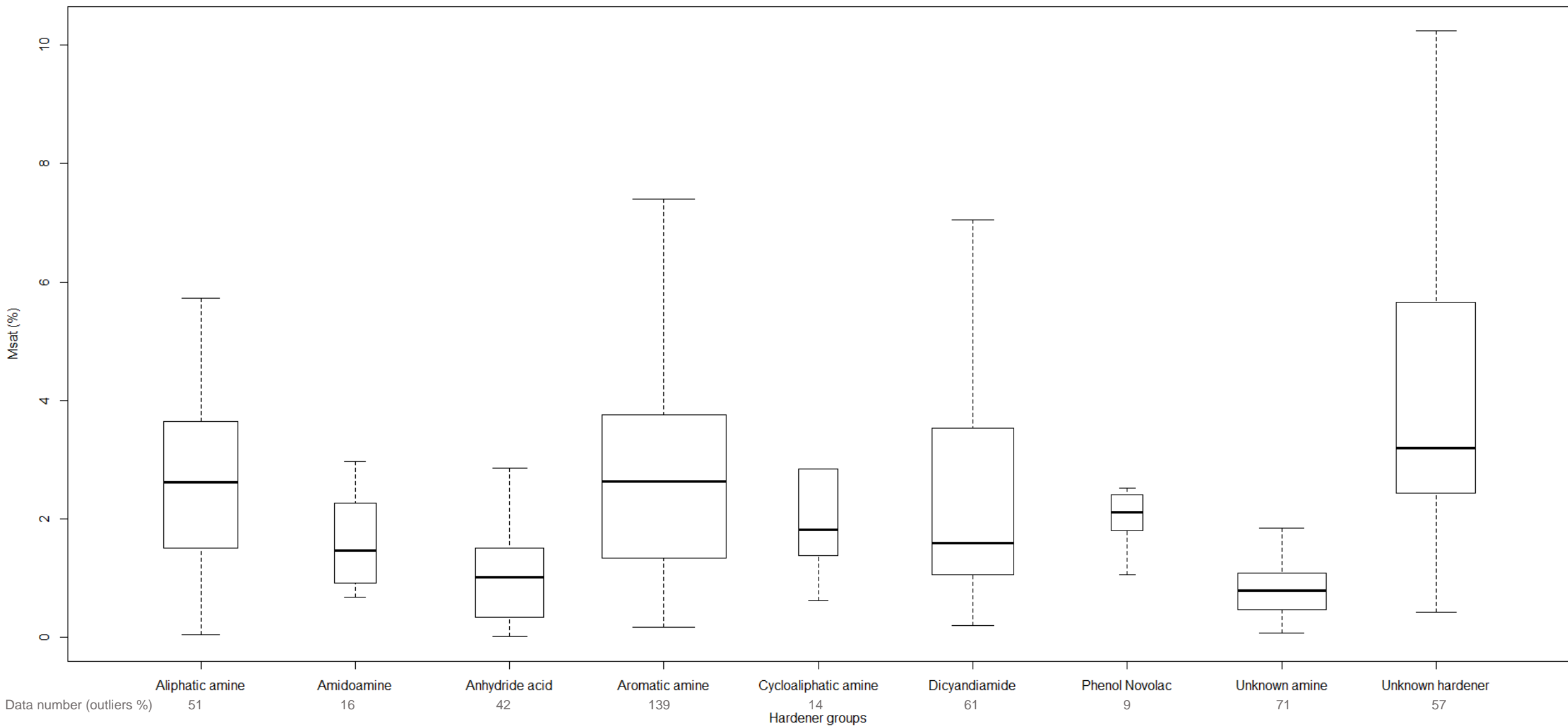


**Figure S7.** Boxplots of  $t_{sat}/h$  as a function of hardener type.

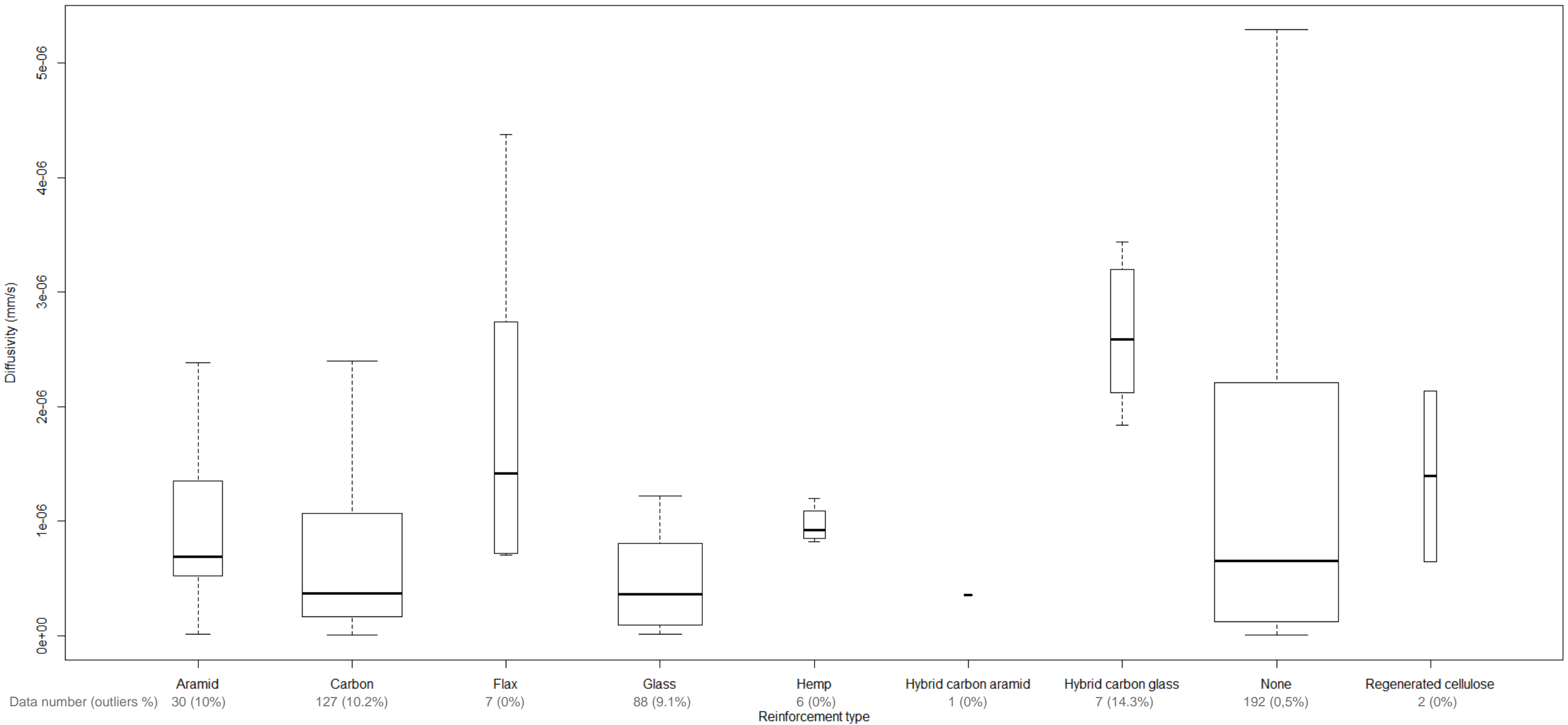




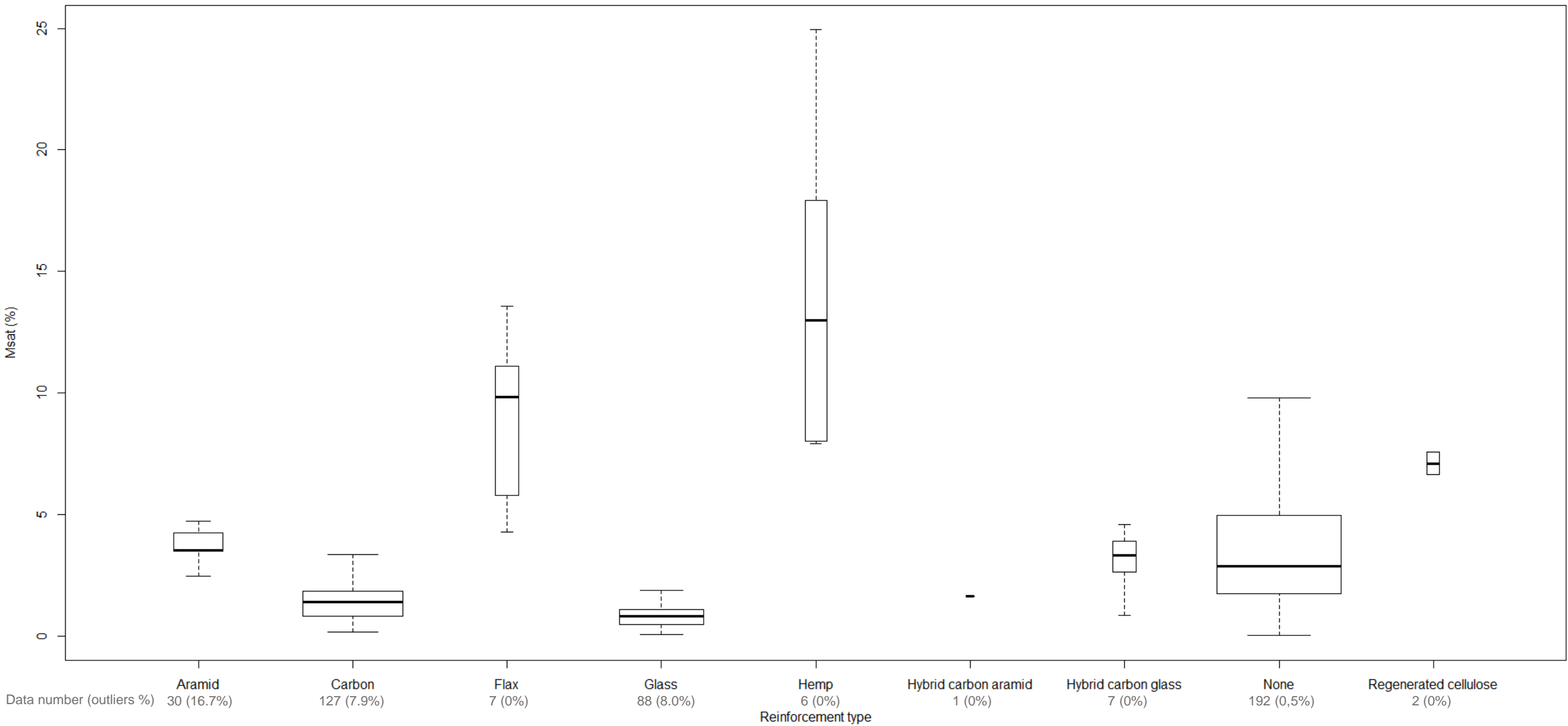
**Figure S8.** Boxplots of  $M_{sat}$  as a function of hardener type.



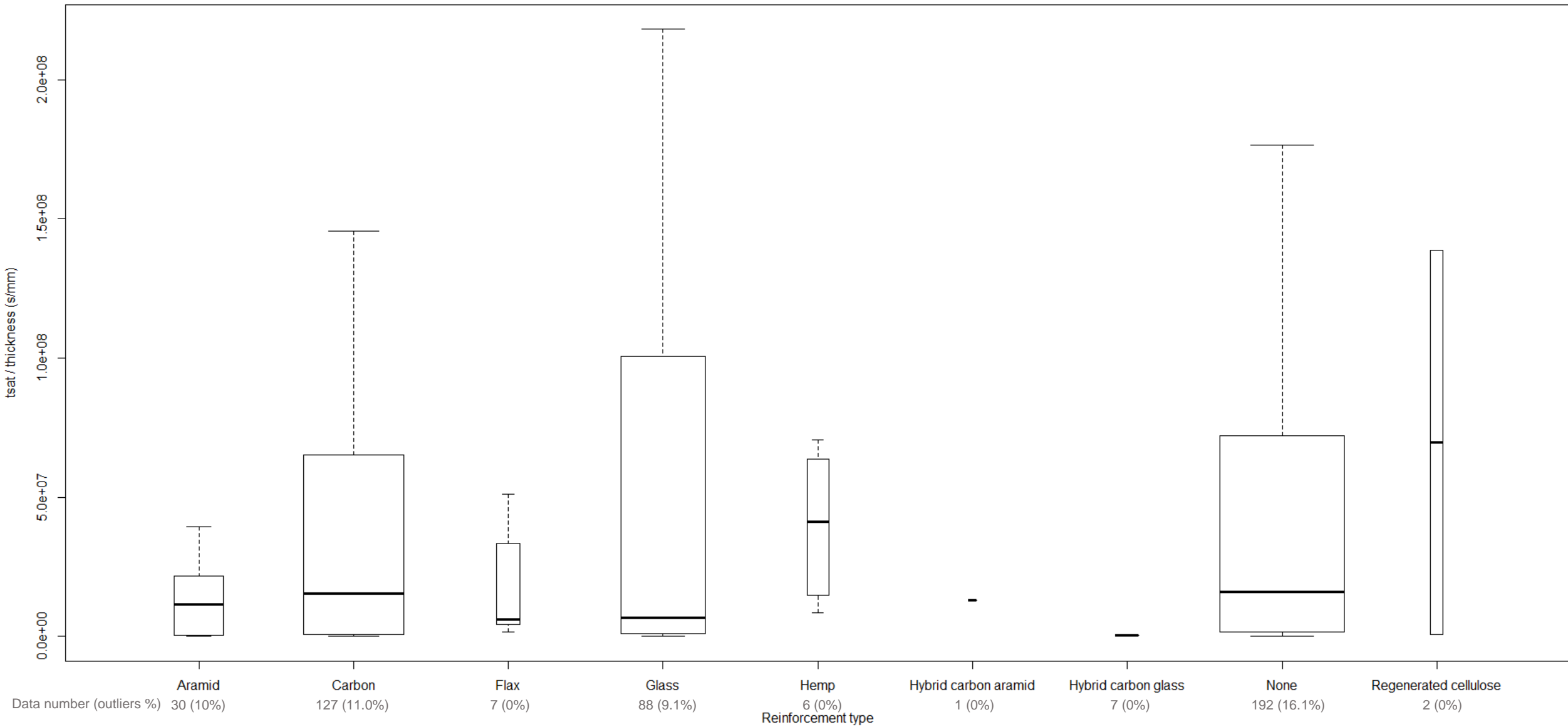
**Figure S9.** Boxplots of  $D$  as a function of reinforcement type.



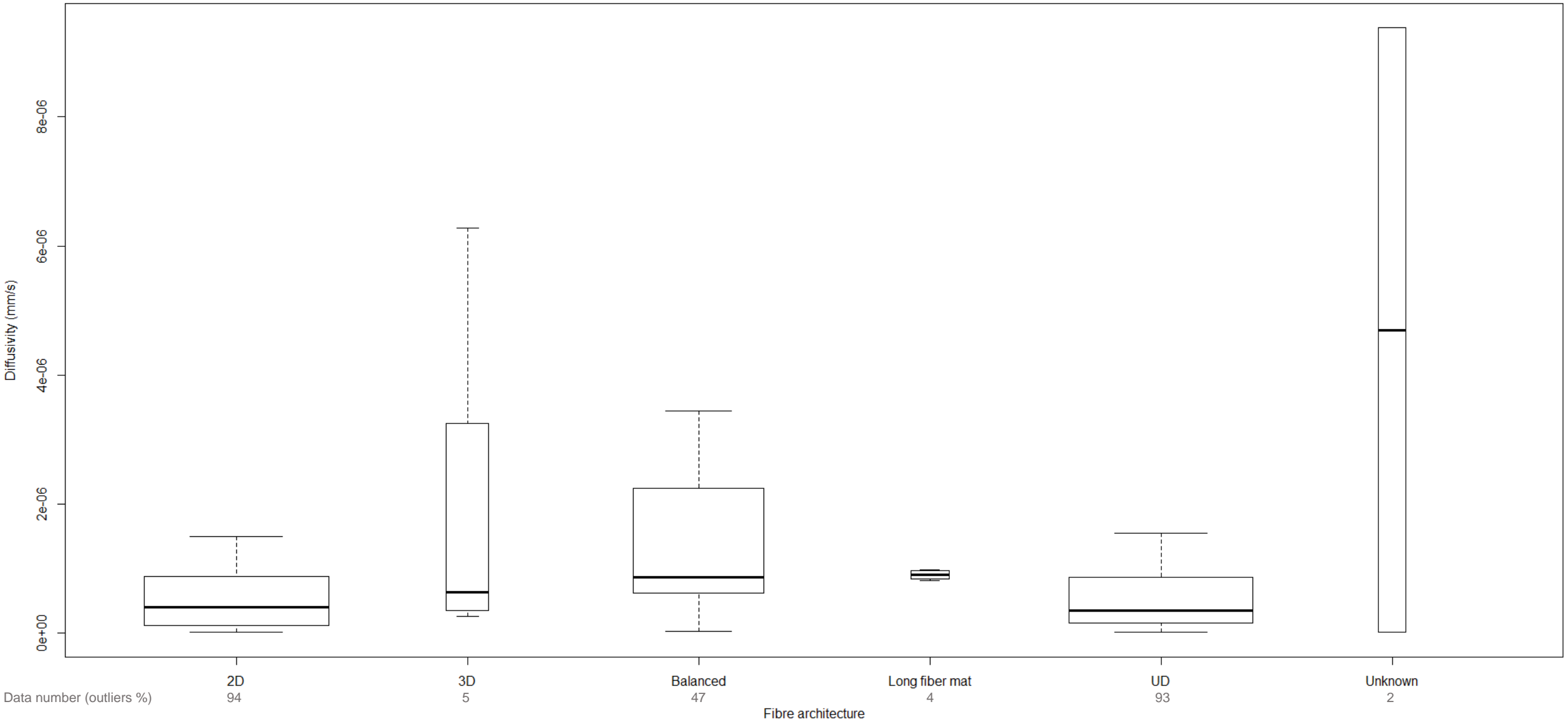
**Figure S10.** Boxplots of  $M_{sat}$  as a function of reinforcement type.



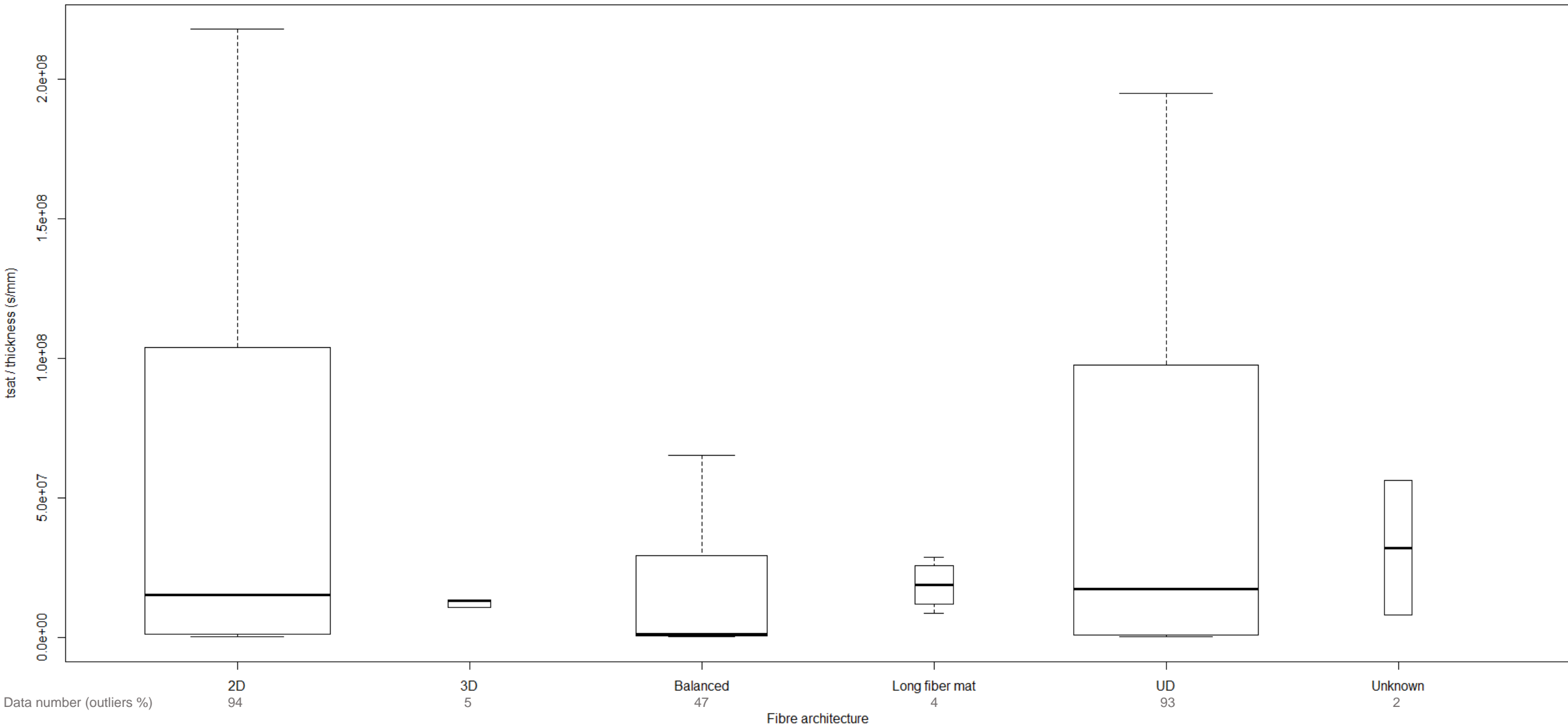
**Figure S11.** Boxplots of  $t_{sat}/h$  as a function of reinforcement type.



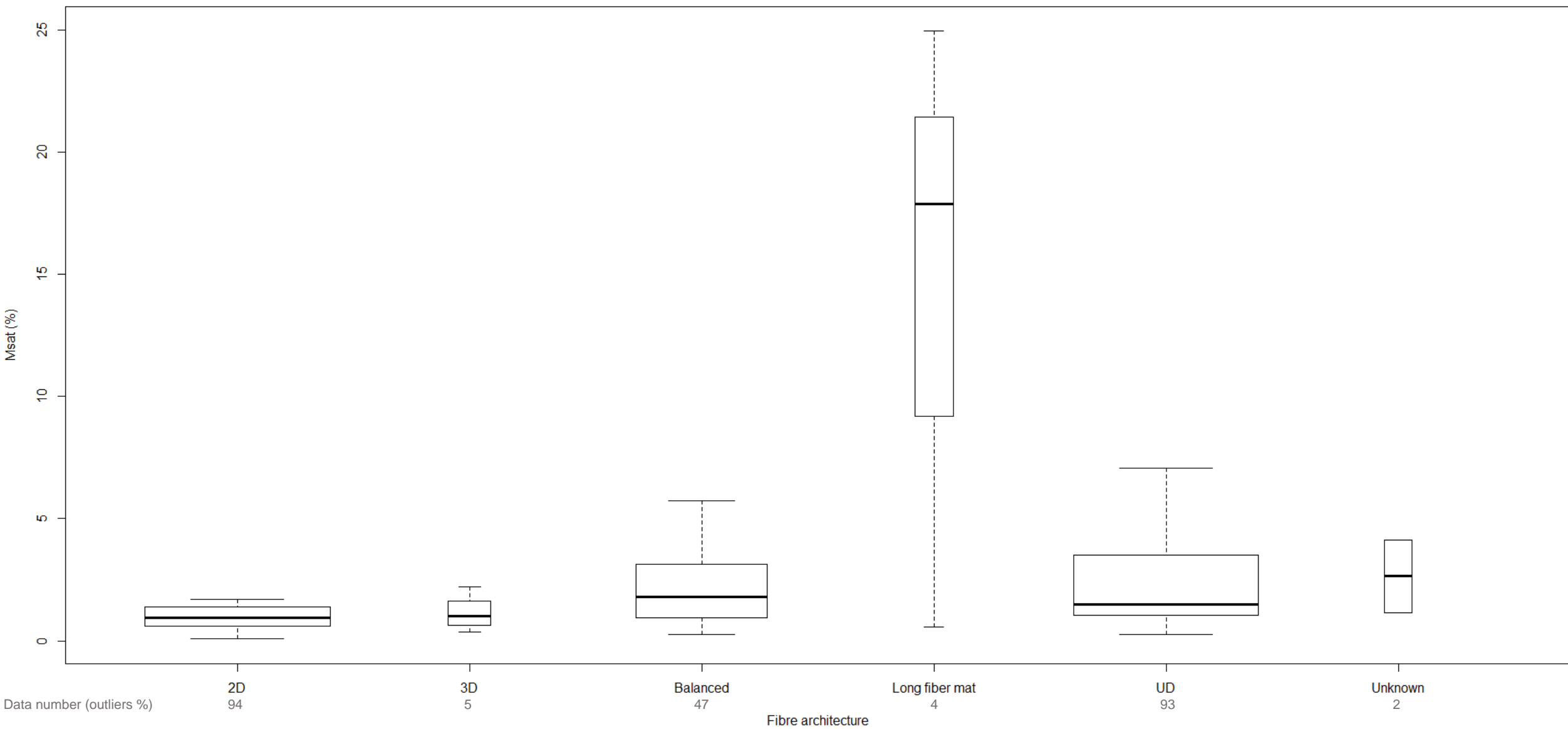
**Figure S12.** Boxplots of  $D$  as a function of fibre architecture.



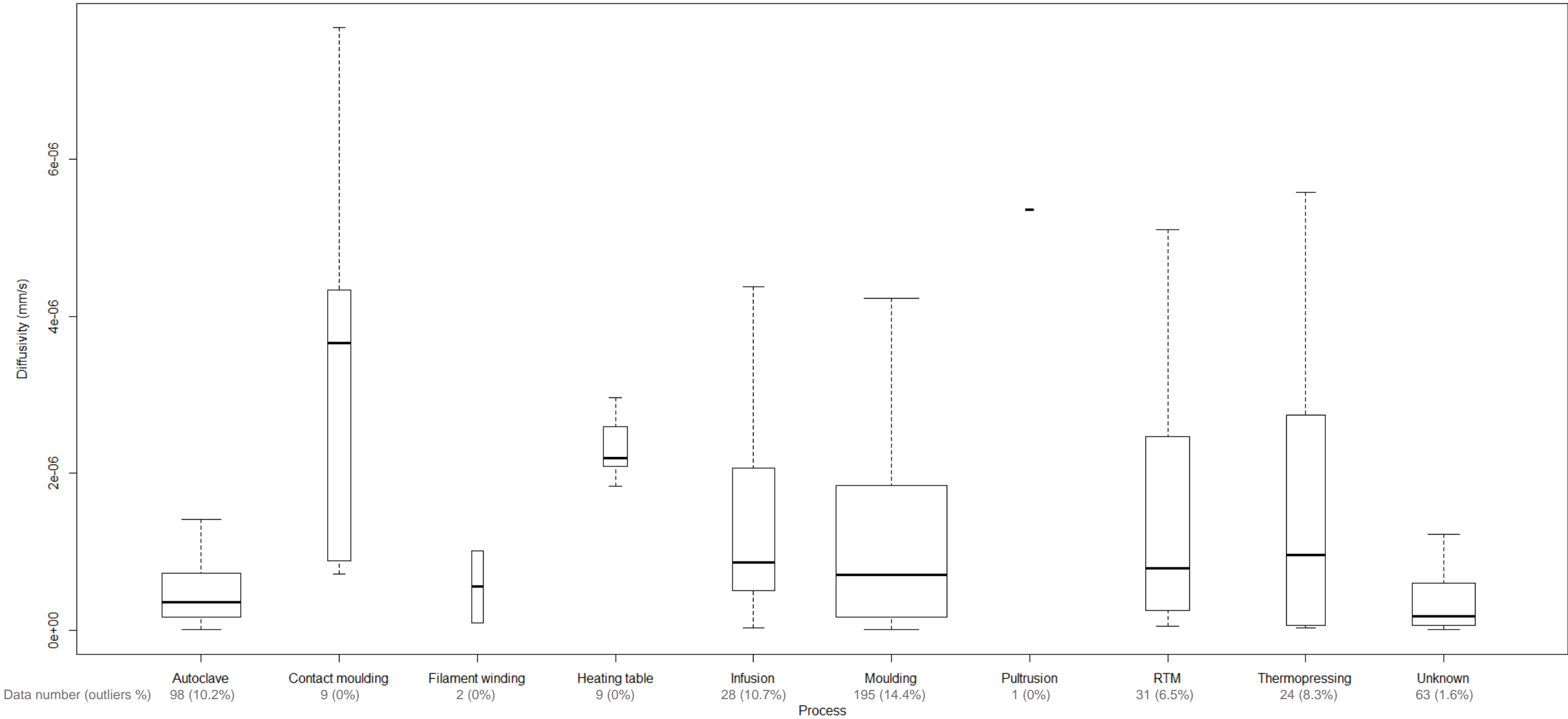
**Figure S13.** Boxplots of  $t_{sat}/h$  as a function of fibre architecture.



**Figure S14.** Boxplots of  $M_{sat}$  as a function of fibre architecture.

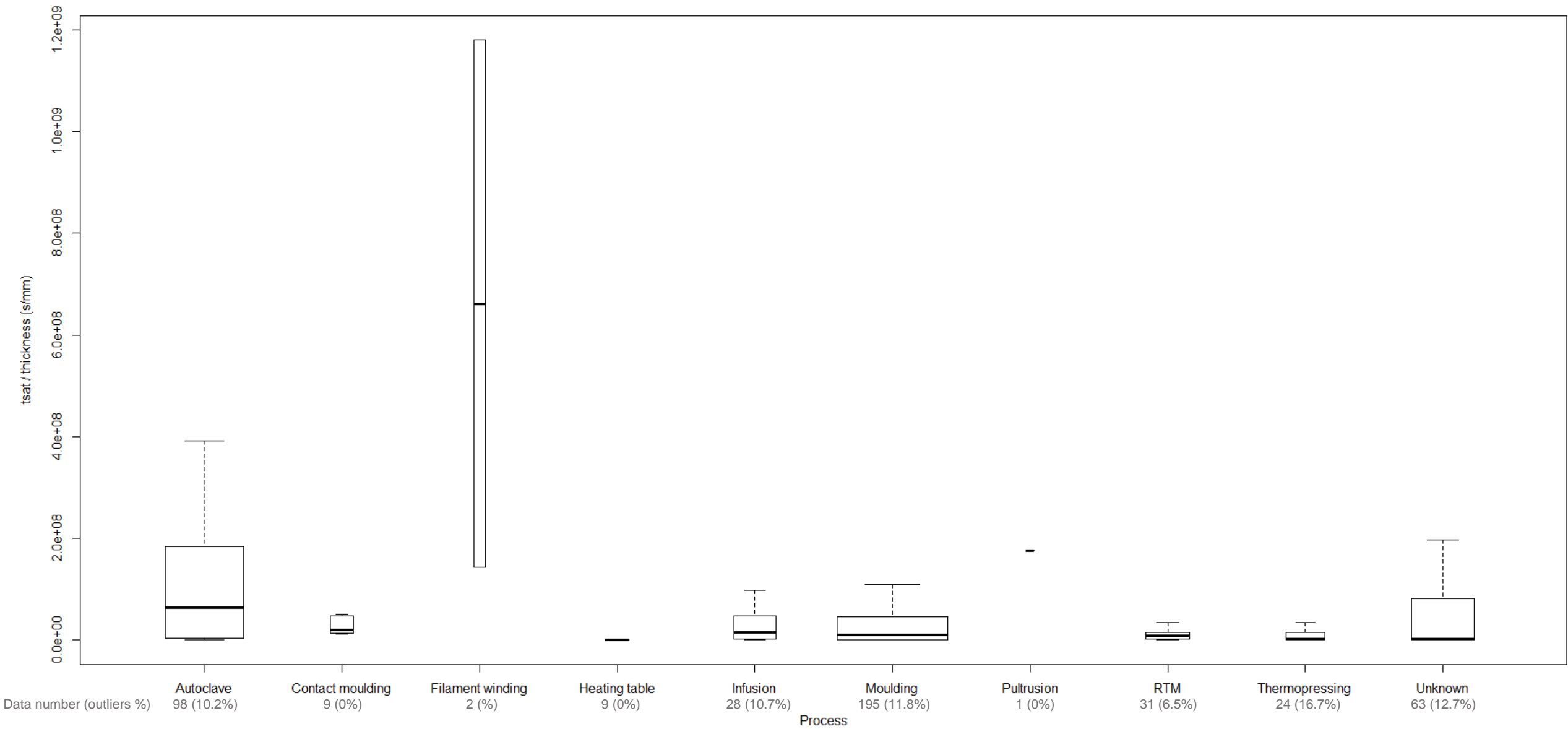


**Figure S15.** Boxplots of  $D$  as a function of process.

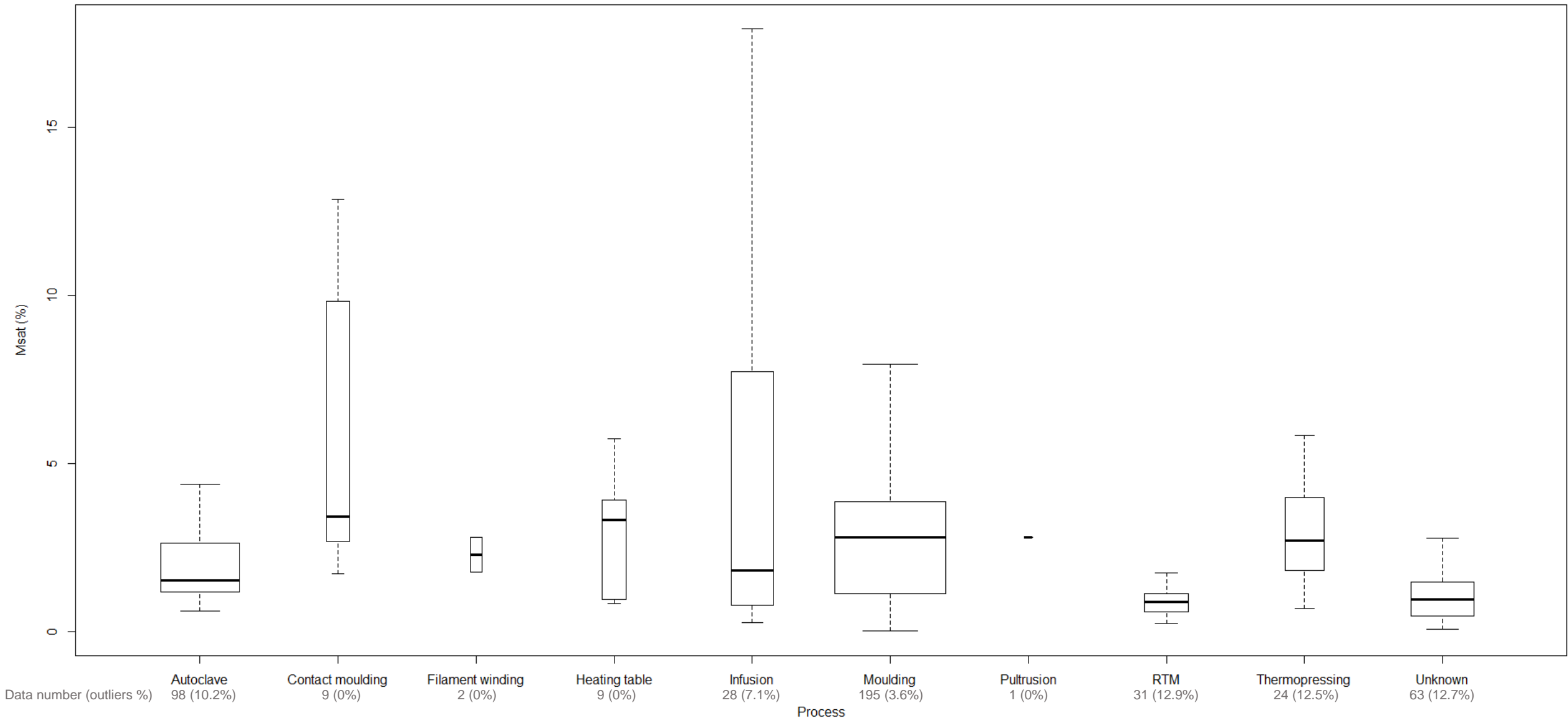




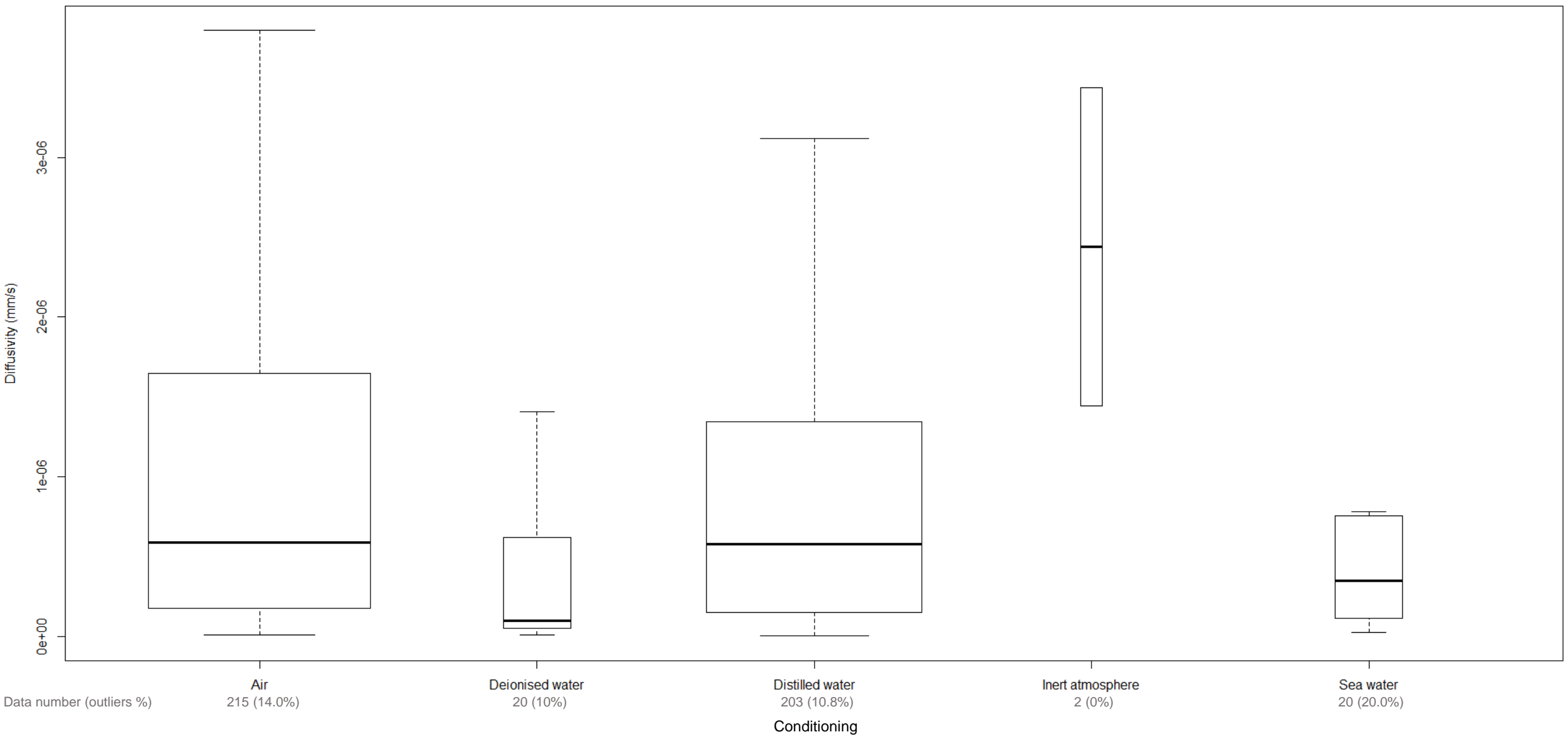
**Figure S16.** Boxplots of  $t_{sat}/h$  as a function of process.



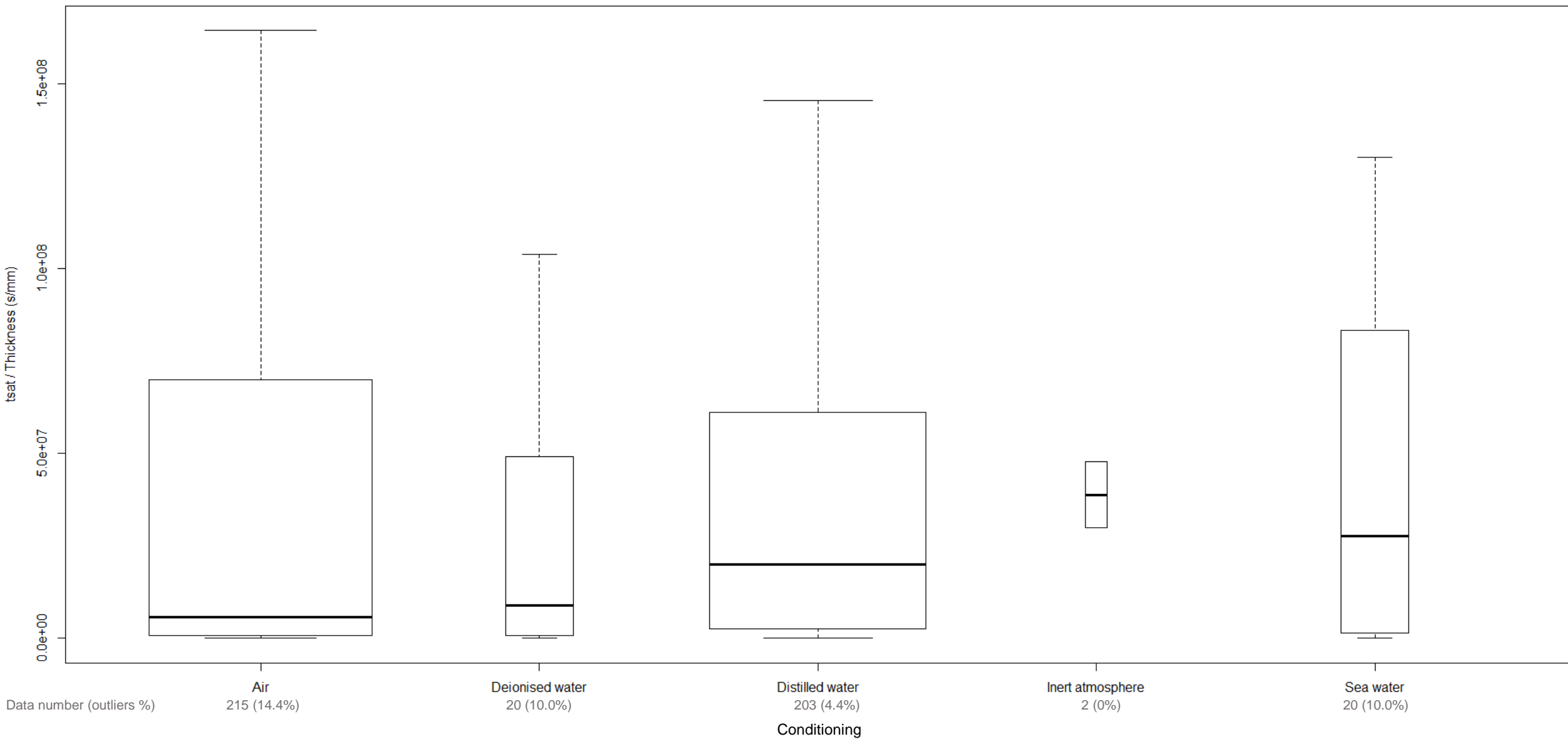
**Figure S17.** Boxplots of  $M_{sat}$  as a function of process.



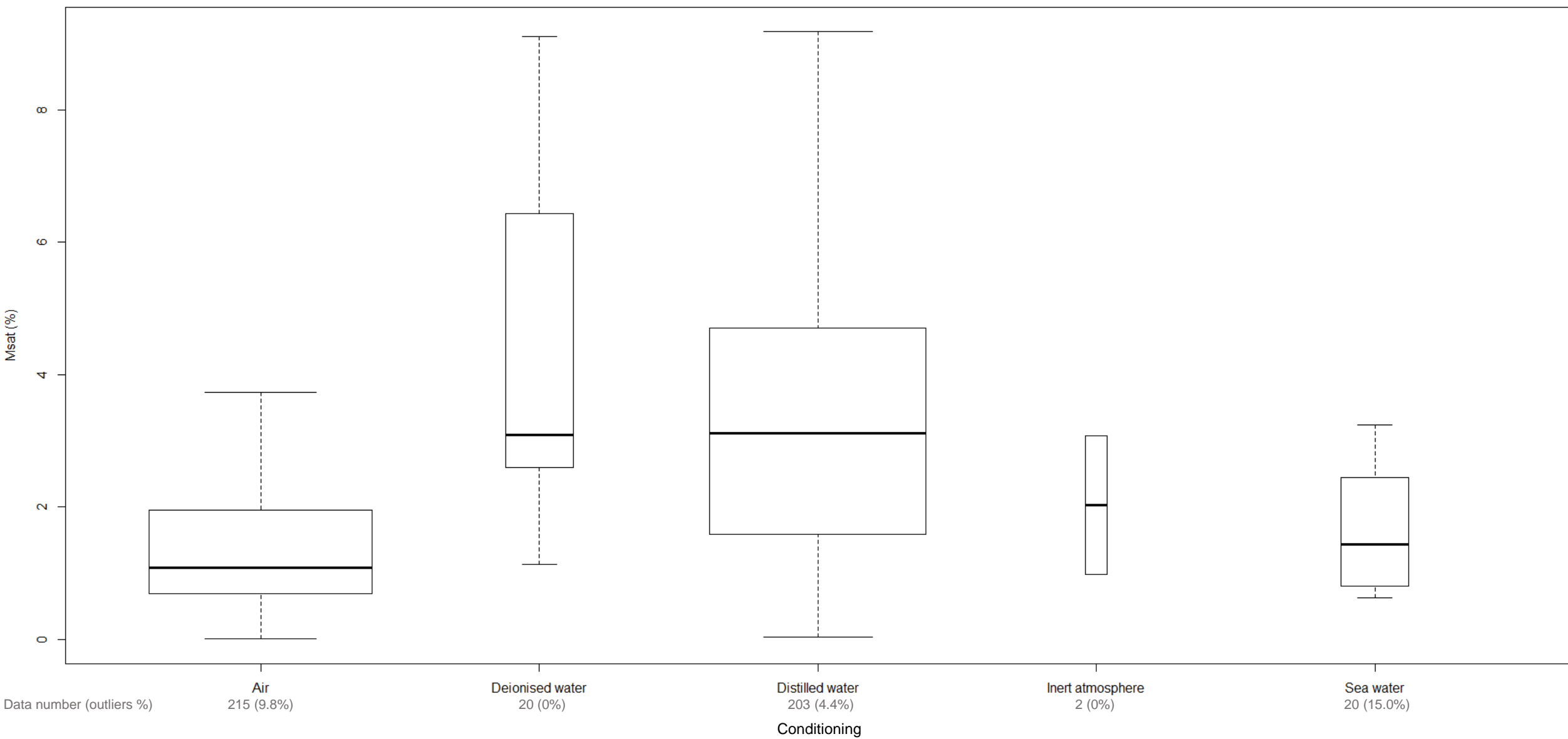
**Figure S18.** Boxplots of  $D$  as a function of conditioning.



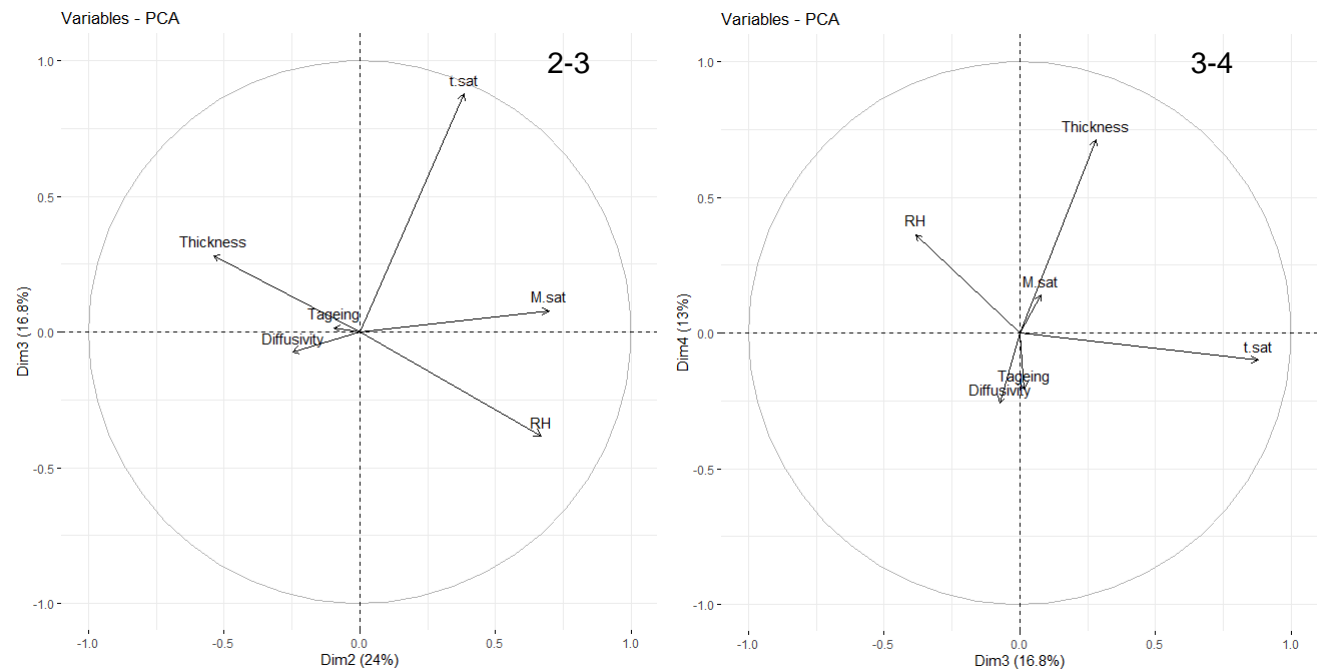
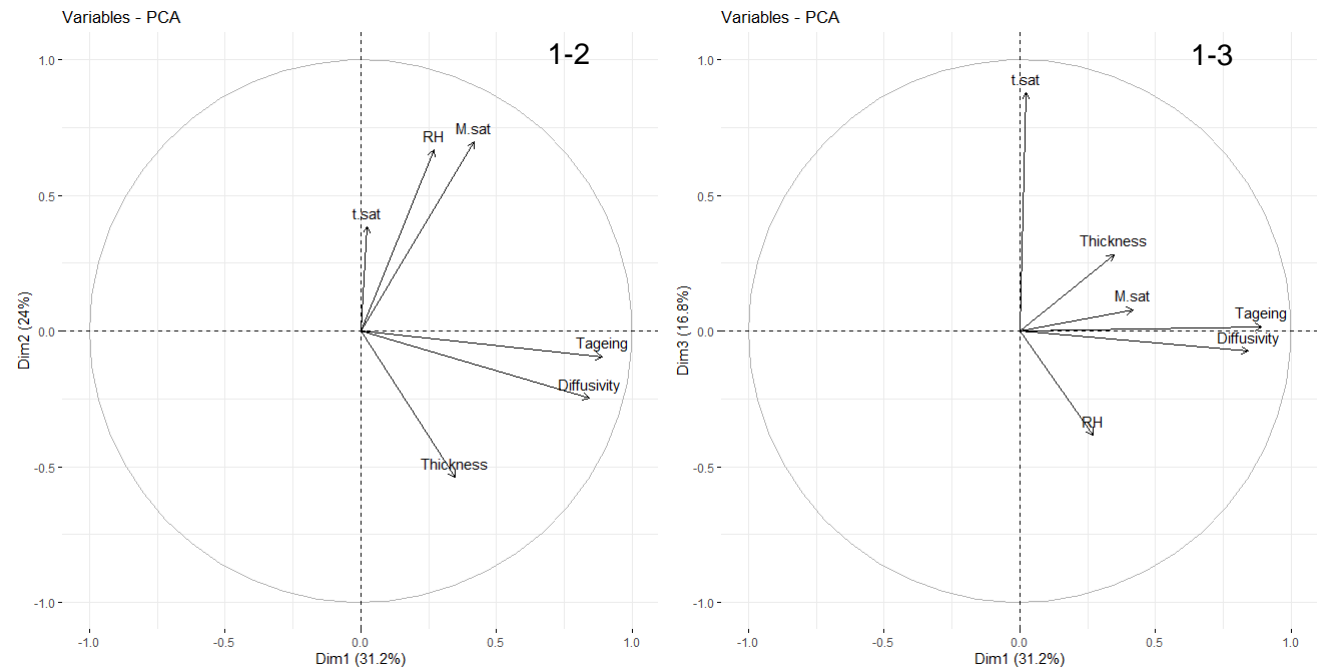
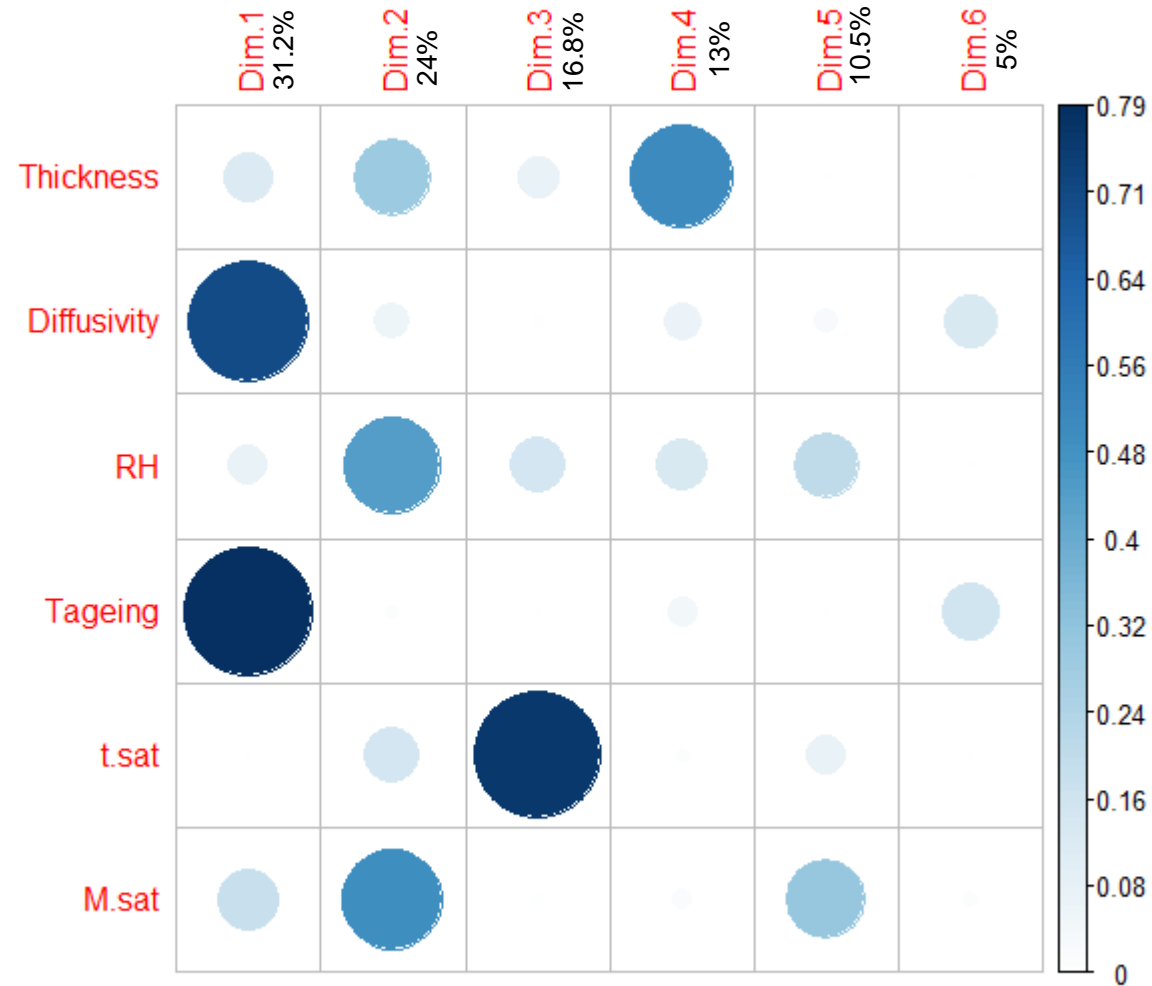
**Figure S19.** Boxplots of  $t_{sat}/h$  as a function of conditioning.



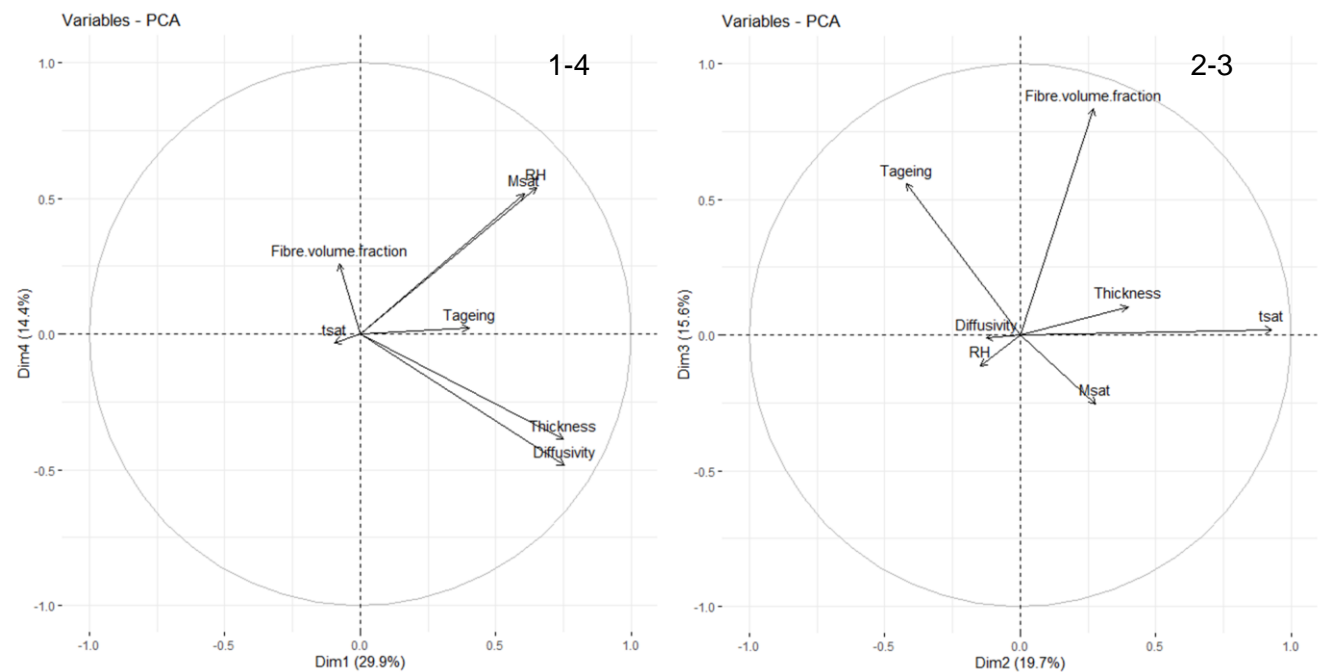
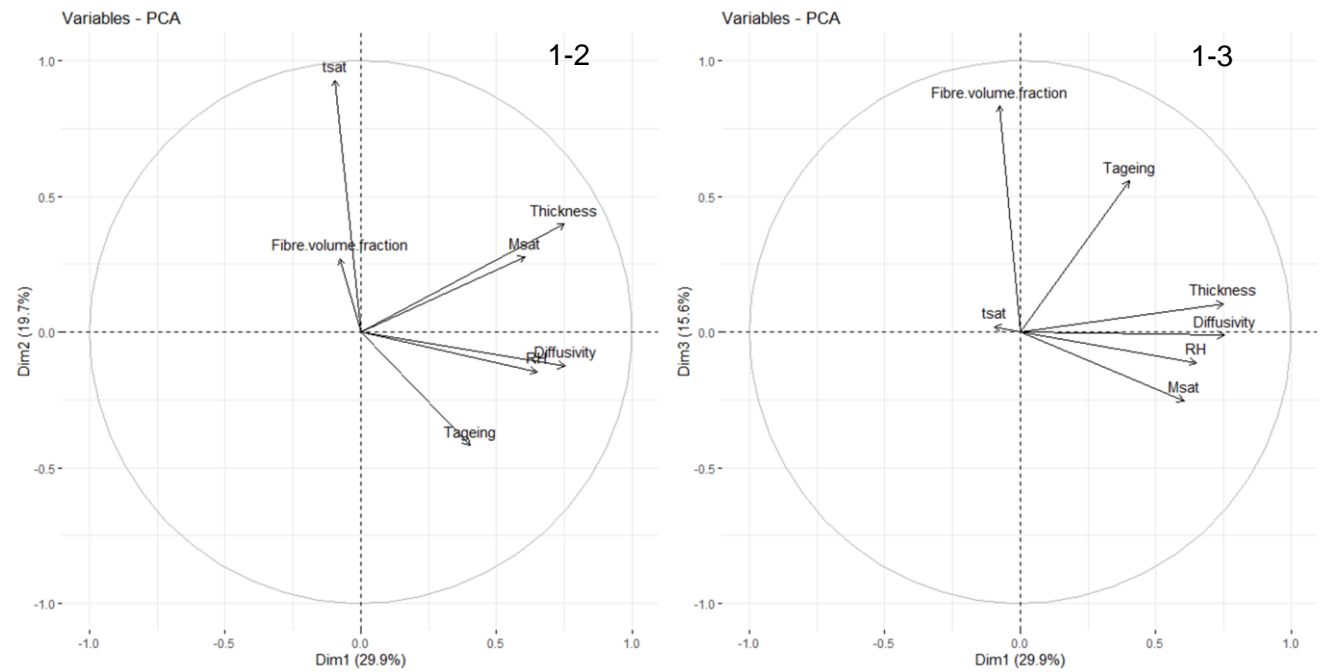
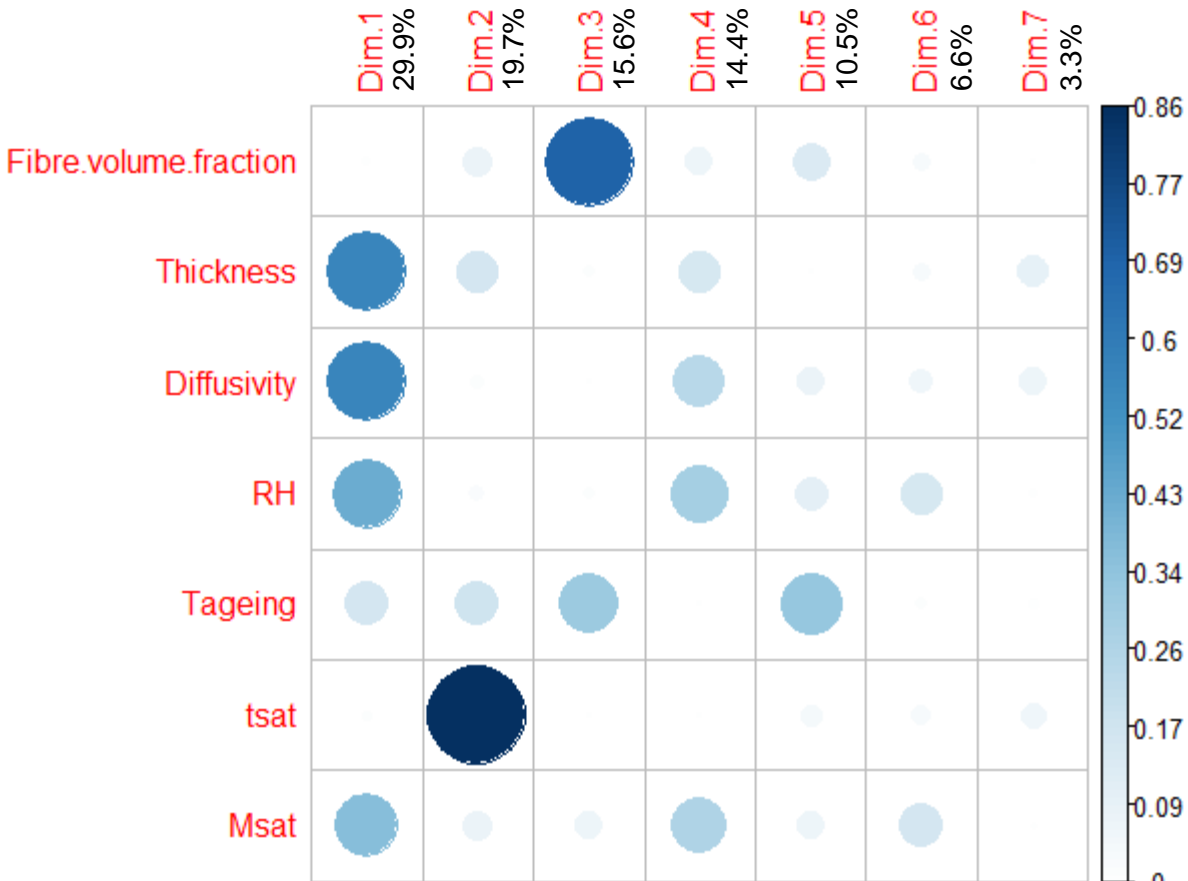
**Figure S20.** Boxplots of  $M_{sat}$  as a function of conditioning.



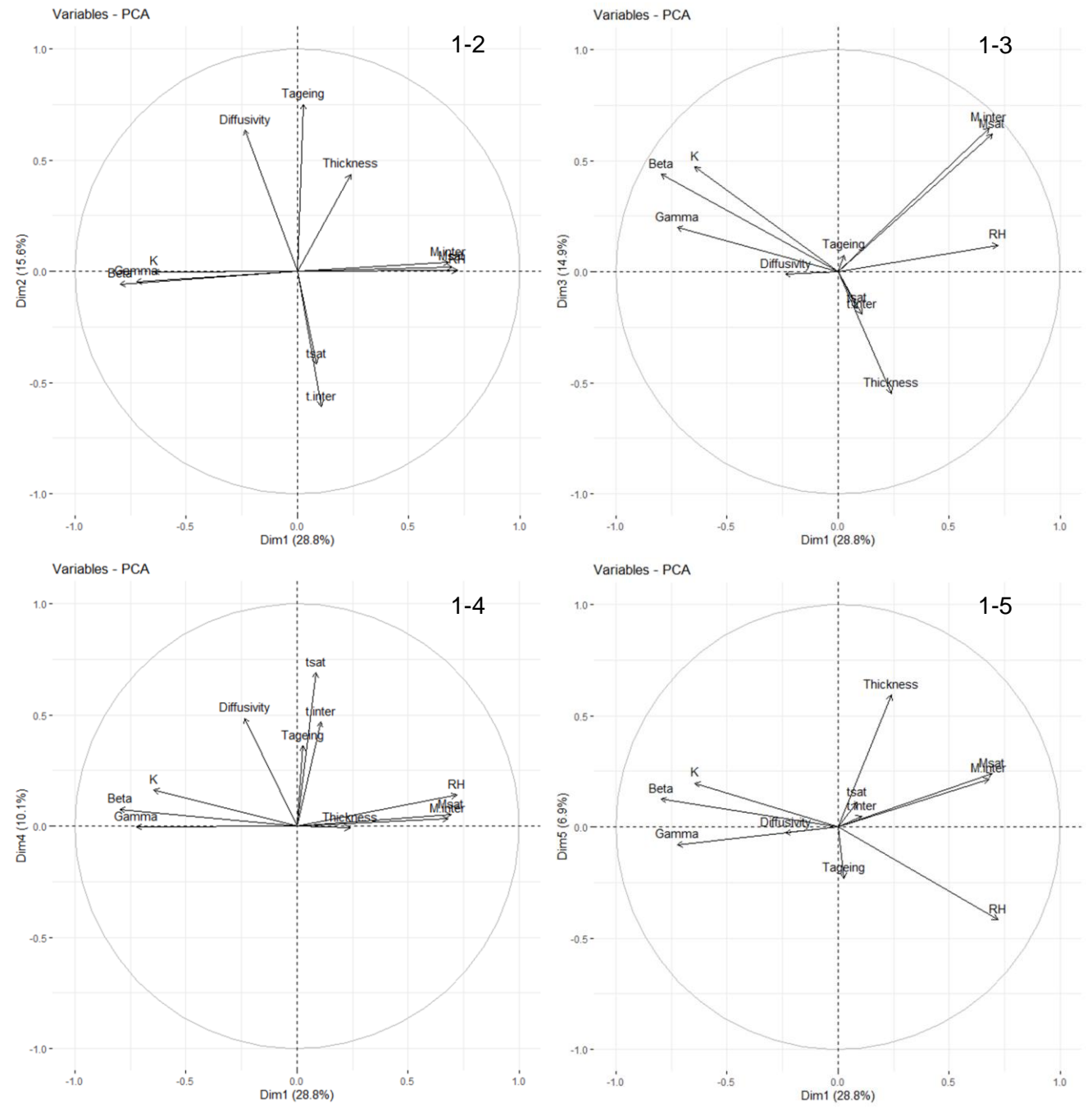
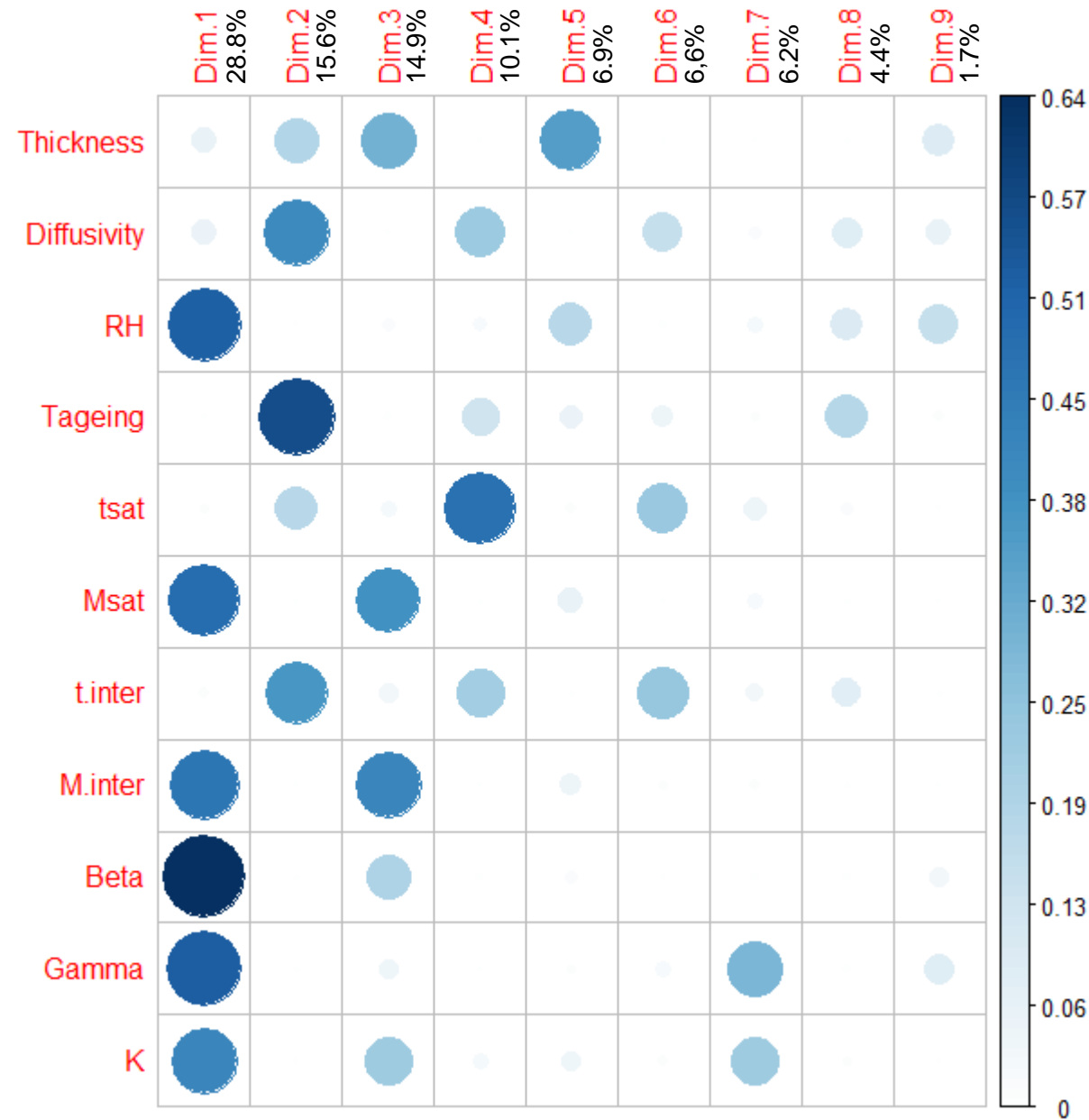
**Figure S21.** Fick resins' PCA: representation quality of the study variables on the principal components and correlation circles.



**Figure S22.** Fick composites' PCA: representation quality of the study variables on the principal components and correlation circles.



**Figure S23.** Dual resins' PCA: representation quality of the study variables on the principal components and correlation circles.





**Figure S24.** Dual composites' PCA: representation quality of the study variables on the principal components and correlation circles.

