

# Natural fibers

Low-emission Acrodur binders are an alternative to formaldehyde-based resins. Composite materials made with Acrodur and natural fibers like hemp, kenaf or wood are lightweight and of high mechanical stability. They are formable in thermoset or thermoplastic processes opening new design opportunities. With our Acrodur grades we are offering innovative and sustainable solutions in particular for the automotive and construction industry.



## Engine encapsulation

Highly efficient combustion engines require state-of-the-art heat insulation. Due to its superior thermomechanical stability, Acrodur is the perfect enabler for turning natural fibers into encapsulation parts. An additional benefit is the acoustic noise reduction. Acrodur can also be applied in other exterior parts, such as underbody shields.



## Interior trim

Automakers are increasingly using natural fibers for lightweight components such as door trims, interior panels, parcel shelves, seat backings and roof frames. The use of natural fibers in combination with Acrodur opens outstanding lightweight performance and new design options for automobile interiors in terms of surface finishing.

Product name	Tg [°C]	Solids [%]	pH value	Viscosity [mPa·s]	Low VOC	FA free*	Self x-linking	Product key properties for respective application	
<b>Thermoset</b>									
Acrodur® 950 L	----	50	~ 3	~ 1,300**	■	■	■	Hard, brittle	Solution
Acrodur® DS 3530	----	50	~ 3	~ 250**	■	■	■	Hard, brittle	Solution
Acrodur® 2444	----	54	~ 3	~ 100**	■	■	■	Hard, brittle	Solution
Acrodur® DS 3558	+20***	50	~ 3.5	~ 900	■	■	■	Hard, impact modified	Hybrid
Acrodur® DS 3515	+90***	50	~ 3.5	~ 550	■	■	■	Hard, impact modified	Hybrid
All our thermoset binders are suitable for both wood fibers (blow line impregnation) as well as bast fibers (Foulard impregnation). Resulting prepregs provide a high B-stage stability. Flame retardants and pigments can easily be added to the binders.									
<b>Thermoplastic</b>									
Acrodur® Power 2850	+85	50	~ 3	~ 100	■	■		Stiff	Dispersion
Acrodur® Power 2750	+100	50	~ 3	~ 100	■	■		Stiff	Dispersion
Our thermoplastic processable binders are suitable for both wood fibers (blow line impregnation) as well as bast fibers (Foulard impregnation). Flame retardants and pigments can easily be added to the binder.									

\* Formaldehyde not intentionally added. Product may comprise minor traces, as ubiquitously occurring impurities cannot be excluded / \*\*Viscosity acc. to ISO 2555 (= Brookfield viscosity) / \*\*\*Thermoset matrix modified with dispersion of mentioned Tg / Tg = Glass transition temperature / Solids [%] = solid content in percent / VOC = Volatile organic compounds / FA = Formaldehyde / Viscosity acc. to ISO 3219 / Low VOC = VOC acc. to 2004/42/EC < 1,000 ppm / x-linking = crosslinking