



**WOOD WOOL**

<b>Project title</b>	Production of wood wool
<b>Sector</b>	Ecological product; wood sector
<b>Location</b>	Travnik Municipality
<b>Location description</b>	The site for production would be in the central part of Bosnia and Herzegovina.
<b>Project status</b>	<ul style="list-style-type: none"> <li>- Concept</li> <li>- Pre-feasibility study completed</li> <li>- Feasibility study completed</li> <li>-The company had audit previous year in March and needs to be update soon.</li> </ul>
<b>Project description</b>	<p>-The project involves for the start the production of wood wool firelighters on monthly basis of 2.8 million pieces up to 4 million pieces.</p> <p>-This would be the first production of wood wool firelighters in our country.</p> <p>-Project would change our country ecological state and fuel cubes would not be used.</p> <p>-Project contains mixture of wood wool and wax which 8-10 minutes to start up fire.</p> <p>-Product can be used to light barbecues, home fires, restaurants and it is more economical for the customer and ECO friendly.</p> <p>-Using this product and putting it on our market as well as EU market as the EU is in lack for this product production.</p> <p>-We have already established connections in EU for the market and the customers request from us to start as soon as possible and already have been waiting for an year.</p> <p>PRODUCT CHARACTERISTICS:</p> <ul style="list-style-type: none"> <li>• <b>COMPOSITION:</b> wood wool kindling consists of tightly packed threads or shavings of wood wool, which are soaked or coated with a flammable substance such as paraffin wax. The combination of wood wool and wax</li> </ul>



	<p>creates a highly flammable material that ignites easily and burns evenly</p> <ul style="list-style-type: none"> <li>• <b>EASY IGNITION:</b> one of the key features is their ease of ignition. The fine fibers of wood wool ignite easily when exposed to flame, while the wax provides additional fuel to sustain the combustion process.</li> <li>• <b>CLEAN AND ODOR FREE:</b> produce minimal smoke and odor when lit, making them a cleaner and more pleasant choice for starting fires compared to traditional lighting methods</li> <li>• <b>RELIABLE PERFORMANCE:</b> The product is designed to provide consistent and reliable performance, ensuring fast ignition and even combustion. Their compact size and consistent composition make them easy to use and store.</li> <li>• <b>ADAPTABILITY:</b> These firewoods are adaptable and can be used in a variety of settings, including indoor fireplaces, outdoor grills, campfires and camping stoves. They are suitable for both indoor and outdoor use, offering practicality and reliability wherever a fire needs to be lit.</li> <li>• <b>ENVIRONMENTALLY FRIENDLY:</b> although they contain flammable materials, they are generally considered more environmentally friendly than certain alternatives, such as firewood with chemical accelerators. They are made from sustainably sourced wood and natural waxes, making them a more environmentally friendly choice for consumers.</li> </ul> <p><b>SELECTION OF RAW MATERIALS:</b> the primary material for this product is wood wool, also known as excelzior; it is produced from thin wood fibers obtained from soft types of wood such as pine or spruce; the wood used should be dry and free of impurities; the second component for the product is wax.</p> <p><b>WOOD WOOL:</b></p> <ul style="list-style-type: none"> <li>• <b>PACKAGING AND FILLING:</b> wood wool is often used for packaging and filling various products. It can be used as protection against shocks and vibrations during transport, and as filling in the packaging of products such as toys, furniture and electronic devices.</li> <li>• <b>HORTICULTURE:</b> in gardening and horticulture, wood wool is used as a substrate for seedlings, in flower arrangements and as a material for decorating garden areas.</li> <li>• <b>ARTS AND CRAFTS:</b> Because of its flexibility and ease of shaping, wood wool is often used in arts and crafts. It can be used to make models, in art installations or as a basis for various handicrafts.</li> <li>• <b>INSULATION:</b> In some cases, wood wool is used as an insulation material in building applications. It has certain insulating properties and can be used as a substitute for other materials such as Styrofoam or glass wool.</li> <li>• <b>FIREWOOD:</b> wood wool is also used as a raw material for the production of firewood. These products are often used to light fires in fireplaces, grills, campfires, and the like.</li> </ul> <p><b>WAX:</b> It helps keep the fire smokeless, odorless and non-toxic by burning cleanly.</p> <p><b>PRODUCTION PROCESS:</b></p> <ul style="list-style-type: none"> <li>• Cutting and wood processing Soft wood is cut into smaller pieces using saws or other cutting tools. These</li> </ul>
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	<p>pieces are then further processed to create fine strands of wood. This may include shredding or cutting the wood into thin, uniform pieces that are bound in a further procedure into the so-called rope of wood wool.</p> <ul style="list-style-type: none"> <li>• Making rope from wood wool (made of spruce wood wool; rope diameter is 22 mm (+/- 3 mm); length - 130 m (+/- 5 m); moisture level - no more than 12% after drying; no pallets or any other packaging material is used to deliver the rolls, they are simply stacked side by side in rows</li> <li>• Mixing wax and wood wool ( With the guide, the rope passes through the pool of wax, soaking the rope in wax for a few seconds, guiding four ropes at the same time.)</li> <li>• Shaping             <ul style="list-style-type: none"> <li>- shaping is done on one of the machines we see in the pictures</li> <li>- it is done with a knife that cuts the rope to a length of 6-8 cm +/- 2 cm diameter 1.5-2 cm +/- 0.5 cm</li> </ul> </li> <li>• Cooling and hardening             <ul style="list-style-type: none"> <li>- after molding, the product is left to cool and harden</li> <li>- this process may involve cooling the wood to room temperature or using cold chambers to speed up the curing process</li> </ul> </li> <li>• Packaging             <ul style="list-style-type: none"> <li>- when the products harden, they are packaged for distribution and sale.</li> <li>- packaging materials should be carefully selected to ensure that the products remain dry and intact until they are used</li> <li>- Bulk packaging: 33 pcs per package; 12 packs per box; 48 boxes per pallet; 33 pallets; 19,008 packages per shipment</li> </ul> </li> </ul> <p>QUALITY CONTROL AND DISTRIBUTION: QUALITY CONTROL: Quality control measures are implemented throughout the manufacturing process to ensure that the product meets safety standards and expectations. This may include testing samples for ignition timing, burn duration and overall efficiency; DISTRIBUTION: the finished products are then distributed to retailers, camping stores, supermarkets and other outlets where they are sold to consumers for fire-lighting in barbecues, fireplaces, campfires and other applications</p>	
<b>Estimated total investment cost</b>	Estimated total investment to start production would be 140.000 € for the new equipment and the new machinery.	
<b>Inputs provided by local partner</b>	<b>Value</b>	<b>Description</b>
	30 000 EUR	
<b>Inputs required from foreign partner</b>	<b>Value</b>	<b>Description</b>
	140 000 EUR	<ul style="list-style-type: none"> <li>- Purchasing of production plant</li> <li>- Providing of all equipment and tools for production</li> </ul>
<b>Form of cooperation with foreign partner</b>	<b>Financial</b>	<b>Technical</b>
	Equity participation	<ul style="list-style-type: none"> <li>- Marketing expertise</li> <li>- Access to technology, equipment etc.</li> <li>- Access to markets and distribution channels, etc.</li> </ul>
<b>Supporting information available</b>	For additional information about this project, please contact FIPA either by e-mail: <a href="mailto:fipa@fipa.gov.ba">fipa@fipa.gov.ba</a> or phone number: +387 33 278 080.	