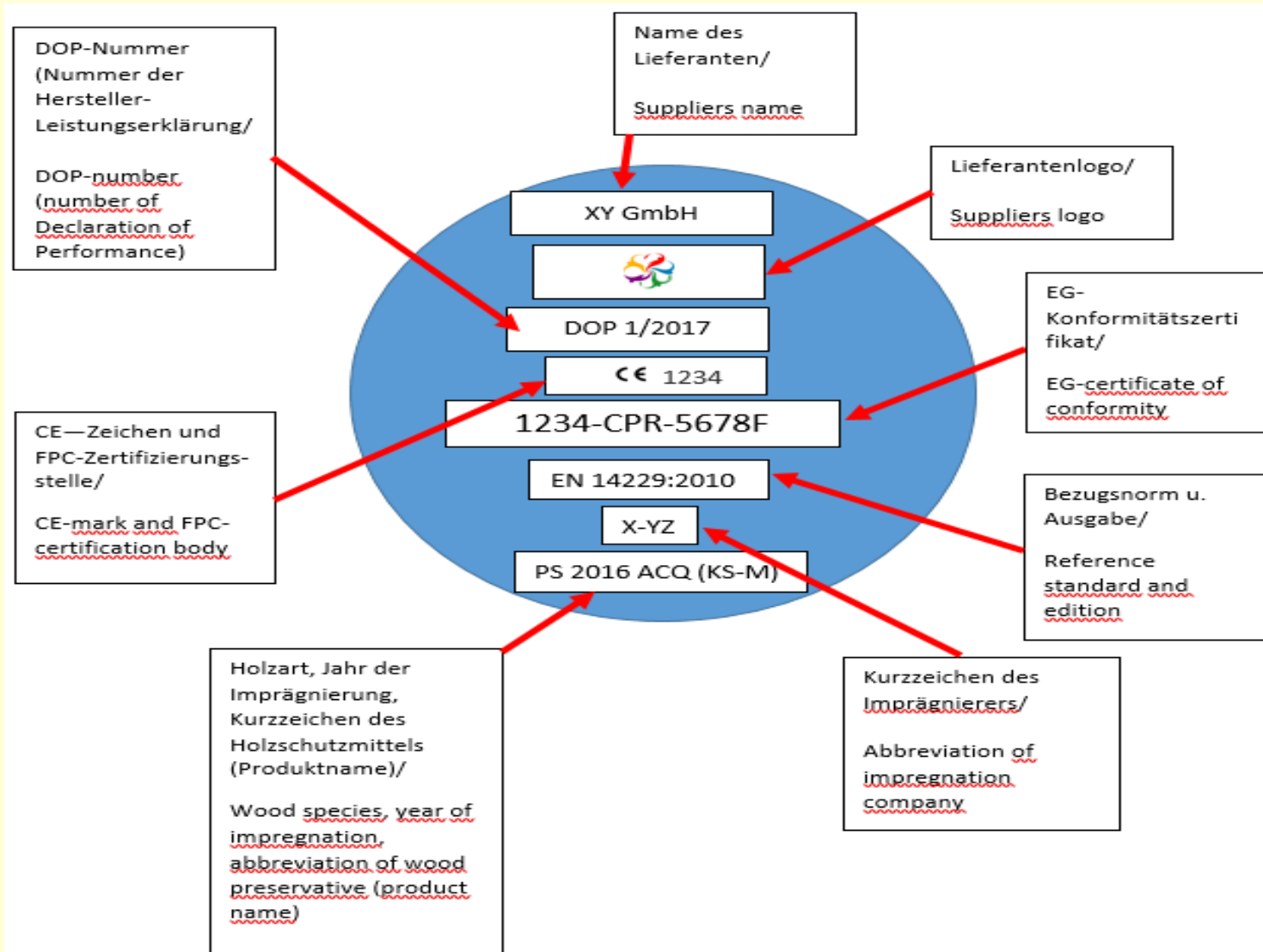


CE-Marking of timber poles - proposal



Advantages of timber sleepers

SGH-Leaflet - Overview -



Studiengesellschaft Holzschwellenoberbau e.V.



Leaflet No. 2

Status_2017_02_07

Advantages of the wooden Sleeper

Wood as raw material

- Natural, renewable material (beech, oak, pine)
- Climate friendly due to CO₂-neutrality
- Origin in sustainably operated European forests - therefore, protection of threatened tropic forests
- Very long service life due to professional vacuum pressure impregnation
- Use of protective agents with significantly improved environmental characteristics (less exudation and less odor generation) - e.g. W.E.I. type C



Application areas

- In normal rail track systems
- In railway station areas
- In switching operations
- In train assembly systems
- For harbor and industrial trains, etc.
- For special application areas such as for tight curve radii, on bridges, in tunnels, on mountain routes, etc.
- For switches
- Subways and S-Trains
- For high axle loads



Wood and technology

- Low weight/easy handling
- Lowered requirements for the height of the ballast bed
- High elasticity in the rail due to very good transverse offset resistance
- No conductivity in comparison to other materials
- Resistance against breaking loads in case of derailments (e.g. switching operation)
- Outstanding noise and tremor damping characteristics
- Mature, safe and durable technology
- Development potential for improvements is available



Disposal

- Reuse in lower ranking rail tracks is possible
- Environmentally compatible disposal of the old sleepers through CO₂-neutral energetic use (heat and electricity generation)



Costs

- Improved overall costs due to favorable secondary materials use and commercialization
- Cost effective compared to many alternative solutions
- Low costs for maintenance works and possible exchanges
- Low transport costs due to lower weight

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Wood as raw material, application areas, wood sleeper and technology, disposal, costs

Advantages of timber sleepers (2)



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Advantages of timber sleepers (3)



Application areas

- In normal rail track systems
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- For switches
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- For high axle loads



Advantages of timber sleepers (4)



Wood and technology

- Low weight/easy handling
- Lowered requirements for the height of the ballast bed
- High elasticity in the rail due to very good transverse offset resistance
- No conductivity in comparison to other materials
- Resistance against breaking loads in case of derailments (e.g. switching operation)
- Outstanding noise and tremor damping characteristics
- Mature, safe and durable technology
- Development potential for improvements is available



Advantages of timber sleepers (5)



Disposal

- Reuse in lower ranking rail tracks is possible
- Environmentally compatible disposal of the old sleepers through CO₂-neutral energetic use (heat and electricity generation)



Costs

- Improved overall costs due to favorable secondary materials use and commercialization
- Cost effective compared to many alternative solutions
- Low costs for maintenance works and possible exchanges
- Low transport costs due to lower weight