

5. Wood

- Temperature Effects:

| | |
|--------------|---------------|
| 200 F | No damage |
| 350 F | Typical oven |
| 450 to 600 F | Flame ignites |

- Fire Damage Evidence:

1. Soot no structural damage
2. Scorching smooth, shiny black surface
reduction in strength of only the outer surface
3. Charring alligating – wood is consumed,
effective cross-section reduced



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- Typical Framing
 - Studs
 - Rafters
 - Joist
 - I-Joist
 - Wood trusses
 - Decks
- Heavy Timber
- Glued Lam



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- Non-Fire (fire) Damage :
 - Smoke Damage
 - Holes cut in sheathing and structural members
 - Water:
 - Increased moisture content – fungal growth
 - Ice and snow
 - Accumulated weight (overstress/collapse floors)
 - Water + collapsed materials + weakened members
 - Plywood/OSB swelling, curling, softening, deflection, delamination



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Water Damage : What is water damage?



5. Wood Foundation



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5. Wood Trusses



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