

## Pożar w sadzie

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **31**
- SRM **3.6**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **28 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **1 min** at **76C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **28 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	1 kg (20%)	80 %	3
Grain	Jęczmienny wędzony brzoza	1 kg (20%)	81 %	5
Grain	Jęczmienny wędzony czereśnią	1 kg (20%)	81 %	5
Grain	Jęczmienny wędzony gruszą	1 kg (20%)	81 %	5
Grain	Jęczmienny wędzony jabłonia	1 kg (20%)	81 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertauer Tradition	60 g	60 min	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	150 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	3 g	Boil	60 min
Water Agent	Chlorek waonia	4 g	Boil	60 min
Other	Tabketka z cynkiem	0.5 g	Boil	60 min
Fining	Whirlfloc	0.5 g	Boil	15 min

## Notes

- Woda z Biedry 3:  
HCO - 171,80  
SO - 20,45  
Cl - 4,90  
Ca - 48,10  
Mg - 9,11  
Na - 5,71  
K - 0,90  
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