

## Polskie wędzone ALE

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **25**
- SRM **8.9**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **20.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **63 C**, Time **45 min**
- Temp **73 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	2 kg (50%)	80 %	3
Grain	słód pilzneński Bruntal	1.5 kg (37.5%)	80 %	4
Grain	Cara Gold Castlemalting	0.5 kg (12.5%)	80 %	120

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	30 min	8.8 %
Boil	Marynka	25 g	2 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis Safale K-97	Ale	Dry	100 g	---

### Extras

Type	Name	Amount	Use for	Time
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Fining	Whirfloc	0.5 g	Boil	10 min
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