

## Pale ale

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- Gravity **17.5 BLG**
- ABV ---
- IBU **53**
- SRM **24.1**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **36.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **46.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **28.5 liter(s)**
- Total mash volume **39.9 liter(s)**

### Steps

- Temp **67 C**, Time **85 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **28.5 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **85 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **29.2 liter(s)** of **76C** water or to achieve **46.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bruntal Pale Ale	10 kg (87.8%)	80 %	6.5
Grain	Castle Chateau Cara Clair	1 kg (8.8%)	80 %	8
Grain	Strzegom Karmel 600	0.185 kg (1.6%)	80 %	601
Grain	Strzegom Czekoladowy ciemny	0.085 kg (0.7%)	80 %	1200
Grain	Jęczmień palony	0.12 kg (1.1%)	80 %	1100

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	60 g	70 min	10 %
Boil	East Kent Goldings	30 g	30 min	5.1 %
Boil	Hallertau Mittelfruh	20 g	30 min	7.5 %
Boil	Hallertau Mittelfruh	30 g	10 min	7.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	10 ml	Fermentum Mobile

BrewMaster Ale Yeast	Ale	Dry	10 g	Erbsloh
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