

## Low apa

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- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **17**
- SRM **4.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **11.2 liter(s)**

### Steps

- Temp **72 C**, Time **70 min**

### Mash step by step

- Heat up **8.4 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **70 min** at **72C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **24.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.5 kg (53.6%)	81 %	4
Grain	Żytni	0.5 kg (17.9%)	85 %	8
Grain	Abbey Malt Weyermann	0.4 kg (14.3%)	75 %	45
Grain	Płatki owsiane	0.4 kg (14.3%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Dry Hop	Citra	50 g	5 day(s)	12 %
Whirlpool	Mosaic	40 g	15 min	10 %
Whirlpool	Citra	10 g	15 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Us05	Ale	Dry	20 g	---