

## Low ABV APA

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- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **28**
- SRM **6.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **38.1 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **25.6 liter(s)**
- Total mash volume **30.3 liter(s)**

### Steps

- Temp **37 C**, Time **15 min**
- Temp **70 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **25.6 liter(s)** of strike water to **38.5C**
- Add grains
- Keep mash **15 min** at **37C**
- Keep mash **90 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **38.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	1 kg (21.5%)	81 %	6
Grain	Żytni	1 kg (21.5%)	85 %	8
Grain	Weyermann - Vienna Malt	1 kg (21.5%)	81 %	8
Grain	Pszeniczny	1 kg (21.5%)	85 %	4
Grain	Strzegom Karmel 150	0.41 kg (8.8%)	75 %	150
Grain	Weyermann - Carapils	0.25 kg (5.4%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Columbus/Tomahawk/Zeus	20 g	100 min	15.5 %
Aroma (end of boil)	Mosaic	25 g	0 min	10 %
Aroma (end of boil)	Cascade	25 g	0 min	6 %
Aroma (end of boil)	El Dorado	25 g	0 min	13.7 %
Dry Hop	Mosaic	43 g	4 day(s)	11.8 %
Dry Hop	Simcoe	35 g	4 day(s)	13.2 %

Dry Hop	El Dorado	35 g	4 day(s)	13.7 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	225 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	Irish Moss	5.63 g	Boil	15 min