

## Low-alc APA

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **19**
- SRM **4.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

### Steps

- Temp **74 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **16.2 liter(s)** of strike water to **83C**
- Add grains
- Keep mash **60 min** at **74C**
- Keep mash **1 min** at **78C**
- Sparge using **22.2 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1 kg (18.5%)	80 %	4
Grain	Strzegom Pale Ale	3 kg (55.6%)	79 %	6
Grain	Strzegom Wiedeński	1 kg (18.5%)	79 %	10
Grain	Carared	0.2 kg (3.7%)	75 %	39
Grain	Weyermann - Carapils	0.2 kg (3.7%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Zula	20 g	20 min	7 %
Whirlpool	El Dorado	20 g	20 min	15 %
Whirlpool	Idaho 7	20 g	20 min	12 %
Dry Hop	Zula	120 g	3 day(s)	7 %
Dry Hop	El Dorado	30 g	3 day(s)	15 %
Dry Hop	Idaho 7	30 g	3 day(s)	14 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Liquid	1000 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	Pozywka dla drozdzy	3 g	Boil	2 min