

## apa

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- Gravity **11.9 BLG**
- ABV ---
- IBU **36**
- SRM **4.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.5 liter(s)**
- Total mash volume **19.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **14.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	1.45 kg (29.9%)	85 %	4
Grain	Strzegom Pale Ale	0.6 kg (12.4%)	79 %	6
Grain	Strzegom Karmel 30	0.3 kg (6.2%)	75 %	30
Grain	Strzegom Pilzneński	2.5 kg (51.5%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	11 g	60 min	17 %
Boil	Citra	10 g	25 min	13.5 %
Boil	Centennial	15 g	10 min	9.4 %
Boil	Citra	15 g	0 min	13.5 %
Whirlpool	Pacifica (NZ)	15 g	30 min	4.8 %
Whirlpool	Centennial	15 g	30 min	9.4 %
Whirlpool	Citra	15 g	30 min	13.5 %
Dry Hop	Citra	25 g	6 day(s)	13.5 %
Dry Hop	Centennial	20 g	6 day(s)	9.4 %
Dry Hop	Simcoe	15 g	6 day(s)	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	300 ml	Fermentis

### Notes

- 12 blg tydzień burzliwa, tydzień cicha  
*Apr 23, 2017, 6:46 PM*