

APA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **37**
- SRM **8.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **11.9 liter(s)**
- Total mash volume **16.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **11.9 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (52.6%)	81 %	4
Grain	Monachijski	1 kg (21.1%)	80 %	16
Grain	Pszeniczny	1 kg (21.1%)	85 %	4
Grain	Strzegom Karmel 150	0.25 kg (5.3%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	12 g	60 min	15.5 %
Boil	Cascade	25 g	15 min	6 %
Boil	Cascade	25 g	5 min	6 %
Dry Hop	Cascade	40 g	3 day(s)	6 %