

#20 APA ze świerkiem

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **34**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13.1 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	3 kg (91.7%)	81 %	4
Grain	Pszoniczny	0.271 kg (8.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	20 min	12 %
Aroma (end of boil)	Citra	20 g	10 min	12 %
Whirlpool	Citra	20 g	10 min	12 %

Extras

Type	Name	Amount	Use for	Time
Spice	pepy swierku	100 g	Boil	20 min
Spice	pepy swierku	240 g	Boil	0 min