APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **60**
- SRM **9.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.2 liter(s)**
- Total mash volume **32.4 liter(s)**

Steps

- Temp **64 C**, Time **80 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **25.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **80 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	6 kg *(83.3%)*	79 %	6
Grain	Pilzneński	1 kg *(13.9%)*	81 %	4
Grain	Strzegom Czekoladowy jasny	0.2 kg *(2.8%)*	68 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Cascade	15 g	60 min	6.5 %
Boil	Cascade	15 g	30 min	6.5 %
Boil	Citra	15 g	25 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	50 ml	---