APA

- Gravity **13.5 BLG**
- ABV **---**
- IBU **43**
- SRM **9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **64 C**, Time **60 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg *(83.3%)*	79 %	6
Grain	Pilzneński	0.8 kg *(13.3%)*	81 %	4
Grain	Karmelowy żytni Strzegom	0.2 kg *(3.3%)*	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka	30 g	60 min	9.5 %
Boil	Cascade	10 g	60 min	6.5 %
Boil	Cascade	15 g	15 min	6.5 %
Boil	Cascade	15 g	5 min	6.5 %
Dry Hop	Cascade	50 g	4 day(s)	6.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	---

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.