APA z resztek

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **29**
- SRM **5.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **70 liter(s)**
- Trub loss **2 %**
- Size with trub loss **71.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **3 %/h**
- Boil size **76.8 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **2.3 liter(s) / kg**
- Mash size **32.4 liter(s)**
- Total mash volume **46.5 liter(s)**

Steps

- Temp **66 C**, Time **70 min**

Mash step by step

- Heat up **32.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **66C**
- Sparge using **58.5 liter(s)** of **76C** water or to achieve **76.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	12.5 kg *(88.7%)*	80 %	5
Grain	Karmelowy Pszeniczny Strzegom	0.3 kg *(2.1%)*	79 %	130
Grain	Karmelowy żytni Strzegom	0.3 kg *(2.1%)*	75 %	150
Grain	Słód Wędzony - Wiśnia	1 kg *(7.1%)*	82 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	100 g	60 min	6.8 %
Aroma (end of boil)	Lebelski	30 g	15 min	4 %
Aroma (end of boil)	Citra	20 g	5 min	12 %
Aroma (end of boil)	Sybilla	15 g	4 min	6 %
Aroma (end of boil)	Cascade	20 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	500 ml	Fermentis

Extras

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

Type	Name	Amount	Use for	Time
Spice	Trawa cytrynowa	75 g	Boil	10 min