American Pale Ale v.3 - Butterfly

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **44**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.8 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.5 kg *(92.8%)*	82 %	4
Grain	Strzegom Wiedeński	0.25 kg *(5.2%)*	79 %	10
Grain	Strzegom Monachijski typ II	0.1 kg *(2.1%)*	79 %	22

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus (USA)!	25 g	25 min	12.6 %
Boil	Columbus (USA)!	35 g	10 min	12.6 %
Aroma (end of boil)	Centennial (USA)!	30 g	5 min	9.5 %
Dry Hop	Centennial (USA)!	33 g	3 day(s)	9.5 %
Dry Hop	Sorachi Ace (USA)!	59 g	3 day(s)	12.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	1000 ml	Fermentis

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