KIELCE 18.03.2023

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **28**
- SRM **9.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **65 min**
- Evaporation rate **15 %/h**
- Boil size **26.7 liter(s)**

Mash information

- Mash efficiency **98 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **11.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **18.9 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.5 kg *(89.5%)*	85 %	7
Grain	Strzegom Karmel 300	0.25 kg *(6.4%)*	70 %	299
Grain	Pszeniczny	0.16 kg *(4.1%)*	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	11.09 %
Boil	Chinook	20 g	10 min	11.09 %
Boil	Chinook	34 g	1 min	11.09 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar

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