Z tego co zostało

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **42**
- SRM **8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.6 liter(s)**
- Total mash volume **32.8 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **73 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **24.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4.4 kg *(53.7%)*	85 %	7
Grain	Pilzneński	2 kg *(24.4%)*	81 %	4
Grain	Pszeniczny	1 kg *(12.2%)*	85 %	4
Grain	Caraamber	0.5 kg *(6.1%)*	75 %	59
Grain	Caramunich® typ I	0.3 kg *(3.7%)*	73 %	80

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	60 min	12.8 %
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.8 %
Boil	Equinox	10 g	30 min	13.1 %
Boil	Azacca	15 g	15 min	10.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	100 ml	---

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