#39 Pale Ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **41**
- SRM **4.8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **0 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20.8 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **67 C**, Time **50 min**
- Temp **74 C**, Time **20 min**

Mash step by step

- Heat up **20.8 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **20 min** at **74C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.8 kg *(53.8%)*	80 %	5
Grain	Strzegom Pilzneński	1.4 kg *(26.9%)*	80 %	4
Grain	Strzegom Monachijski typ II	0.5 kg *(9.6%)*	79 %	20
Grain	Weyermann - Carapils	0.2 kg *(3.8%)*	78 %	4
Grain	Płatki owsiane	0.1 kg *(1.9%)*	60 %	3
Grain	Płatk jęczmienne	0.1 kg *(1.9%)*	60 %	2
Grain	Grodziski pszeniczny	0.1 kg *(1.9%)*	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	20 g	55 min	11 %
Aroma (end of boil)	Oktawia	35 g	10 min	7.1 %
Aroma (end of boil)	Amarillo	8 g	5 min	9.5 %
Aroma (end of boil)	Cascade	17 g	5 min	6 %
Dry Hop	Galaxy	20 g	3 day(s)	15 %
Aroma (end of boil)	Chinook	10 g	5 min	13 %

Yeasts

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

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

Notes

- Fermentacja:
  -Do czasu ruszenia drożdży 18,5-19
  -pierwsza doba 19-19.5
  -potem 19,5-20
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