IPA v18 #135

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **57**
- SRM **6.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **16.9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **25.7 %/h**
- Boil size **25.4 liter(s)**

Mash information

- Mash efficiency **84.1 %**
- Liquor-to-grist ratio **3.27 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale - viking	2.9 kg *(63%)*	80 %	5.5
Grain	pszeniczny - bestmalz	0.25 kg *(5.4%)*	82 %	5
Grain	wiedeński - viking	0.7 kg *(15.2%)*	79 %	8.6
Grain	monachijski I - viking	0.7 kg *(15.2%)*	79 %	16
Grain	Chateau - cara gold	0.05 kg *(1.1%)*	78 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	11.5 %
Boil	CTZ	30 g	13 min	10.7 %
Aroma (end of boil)	Centennial	50 g	5 min	10.5 %
Aroma (end of boil)	Moutere	10 g	5 min	15.9 %
Aroma (end of boil)	Mosaic	40 g	1 min	12.8 %
Dry Hop	Centennial	40 g	2 day(s)	10.5 %
Dry Hop	Mosaic	30 g	2 day(s)	12.8 %
Dry Hop	Moutere	17 g	2 day(s)	15.9 %

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

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	150 ml	Fermentum Mobile
2-dniowa gęstwa				

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	3 g	Mash	---
Water Agent	kwas mlekowy 80% [ml]	4.36 g	Mash	---
Water Agent	chlorek wapnia [ml]	0 g	Mash	---
Water Agent	epsom	0.5 g	Mash	---
Water Agent	mech irlandzki	3 g	Boil	15 min
Water Agent	kwas askorbinowy	3.4 g	Bottling	---