Harnaś jak Łomża

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **26**
- SRM **5.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **170 liter(s)**
- Trub loss **5 %**
- Size with trub loss **178.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **215.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **115.5 liter(s)**
- Total mash volume **154 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **115.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **138.1 liter(s)** of **76C** water or to achieve **215.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	10 kg *(26%)*	80 %	4
Grain	Strzegom Monachijski typ II	10 kg *(26%)*	79 %	22
Grain	Strzegom Pszeniczny	5 kg *(13%)*	81 %	6
Grain	Viking Pale Ale malt	5 kg *(13%)*	80 %	5
Grain	BESTMALZ - Best Pilsen	2 kg *(5.2%)*	80.5 %	4
Grain	Oats, Flaked	3 kg *(7.8%)*	80 %	2
Grain	Pszenica niesłodowana	3 kg *(7.8%)*	75 %	3
Grain	Acid Malt	0.5 kg *(1.3%)*	58.7 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	100 g	60 min	11 %
Boil	Amora Preta	50 g	10 min	11 %
Boil	Marynka	70 g	60 min	10 %
Dry Hop	Cascade PL	100 g	3 day(s)	5.5 %
Dry Hop	Amora Preta	50 g	3 day(s)	11 %

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

Dry Hop	Oktawia	100 g	3 day(s)	7.1 %
Dry Hop	Chinook PL	100 g	3 day(s)	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis