

Polskie jasne pelne HB

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **33**
- SRM **4.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16.3 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **74.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3 kg (69.8%)	82 %	4
Grain	Viking Vienna Malt	1 kg (23.3%)	79 %	7
Grain	Karmelowy Jasny 30EBC viking	0.3 kg (7%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	0 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Liquid	40 ml	Fermentum Mobile