

#11 POLSKIE JASNE (PILS)

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **29**
- SRM **4**
- Style **German Pilsner (Pils)**

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 **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **14.8 liter(s)** of strike water to **75.3C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **77C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (88.9%)	80 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (11.1%)	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	50 min	10 %
Boil	Lublin (Lubelski)	20 g	20 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-23	Lager	Dry	11.5 g	---