

jasne trzasnę

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **35**
- SRM **6.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **68 C**, Time **80 min**
- Temp **75.6 C**, Time **5 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **80 min** at **68C**
- Keep mash **5 min** at **75.6C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.55 kg (59.3%)	81 %	4
Grain	Strzegom Monachijski typ I	1.4 kg (32.6%)	79 %	22
Grain	Karmelowy Jasny 30EBC	0.35 kg (8.1%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Boil	Lublin (Lubelski)	40 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP099 - Super High Gravity Ale Yeast	Ale	Liquid	35 ml	White Labs