

szymanowska gorycz

- Gravity **14.3 BLG**
- ABV ---
- IBU **63**
- SRM **10.8**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **39.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **23.7 liter(s)** of **76C** water or to achieve **39.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3 kg (37.5%)	80 %	7
Grain	Strzegom Wiedeński	3 kg (37.5%)	79 %	10
Grain	Karmelowy Czerwony	0.5 kg (6.3%)	75 %	59
Grain	Strzegom Karmel 30	0.5 kg (6.3%)	75 %	30
Grain	Monachijski	1 kg (12.5%)	80 %	16

Hops

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

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	300 ml	Safale