

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **10.2**
- Style **Irish Red Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (55.6%)	80 %	4
Grain	Viking Pale Ale malt	1 kg (18.5%)	80 %	6
Grain	caramel pills Bestmalz	0.3 kg (5.6%)	80 %	5
Grain	red active- viking malt	1 kg (18.5%)	80 %	35
Grain	Czekoladowy bestmalz	0.1 kg (1.9%)	68 %	900

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	9.5 %
Boil	Lublin (Lubelski)	20 g	20 min	4 %
Aroma (end of boil)	Citra uniwersalny	30 g	0 min	13.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa - Czech Pilsner	Lager	Slant	50 ml	Gozdawa