

# N

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **28**
- SRM **4.6**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **68 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5.5 kg (77.5%)	80 %	4
Grain	Płatki orkiszowe	0.8 kg (11.3%)	60 %	4
Grain	Płatki owsiane	0.8 kg (11.3%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Aroma (end of boil)	Citra	30 g	10 min	12 %
Whirlpool	Citra	60 g	1 min	12 %
Dry Hop	Citra	75 g	6 day(s)	12 %
Dry Hop	Citra	300 g	3 day(s)	12 %