

MIX

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **40**
- SRM **4.3**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (83.3%)	80 %	4
Grain	Strzegom Monachijski typ I	0.7 kg (11.7%)	79 %	16
Grain	Weyermann - Carapils	0.3 kg (5%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	50 g	60 min	3.5 %
Boil	Magnum	15 g	60 min	11.6 %
Boil	Premiant	10 g	50 min	6.1 %
Boil	Lublin (Lubelski)	30 g	10 min	2.6 %
Aroma (end of boil)	Cascade	20 g	0 min	5.8 %
Dry Hop	Mosaic	10 g	4 day(s)	13.2 %
Dry Hop	Citra	10 g	4 day(s)	11.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	---