

Summer

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **65**
- SRM **5.1**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **41.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **26.1 liter(s)**
- Total mash volume **35.1 liter(s)**

Steps

- Temp **55 C**, Time **60 min**
- Temp **66 C**, Time **80 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **26.1 liter(s)** of strike water to **61C**
- Add grains
- Keep mash **60 min** at **55C**
- Keep mash **80 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **24.3 liter(s)** of **76C** water or to achieve **41.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (55.6%)	80 %	4
Grain	Żytmi	2 kg (22.2%)	85 %	8
Grain	Castlemalting - Cara Clair	1 kg (11.1%)	78 %	4
Grain	Monachijski	1 kg (11.1%)	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	50 g	60 min	11.2 %
Aroma (end of boil)	Cascade	30 g	10 min	6 %
Aroma (end of boil)	Cascade	30 g	5 min	6 %
Dry Hop	Cascade	60 g	7 day(s)	6 %
Whirlpool	Hallertau Blanc	60 g	60 min	11 %
Dry Hop	Sorachi Ace	50 g	7 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis