

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **57**
- SRM **5.3**
- Style **Rye IPA**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **15.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **22 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.5 kg (34.1%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (22.7%)	79 %	10
Grain	BESTMALZ - Best Wheat Malt	1 kg (22.7%)	82 %	4
Grain	Rye, Flaked	0.4 kg (9.1%)	78.3 %	4
Grain	Biscuit Malt	0.25 kg (5.7%)	79 %	45
Grain	Wheat, Torrified	0.25 kg (5.7%)	79 %	4
Adjunct	gips	0 kg	1 %	1

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %
Boil	lunga	20 g	20 min	11 %
Boil	Cascade PL	40 g	1 min	5.2 %
Dry Hop	Cascade PL	60 g	3 day(s)	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	100 ml	Fermentum Mobile

## Notes

- piwo z resztek  
*Apr 24, 2018, 10:04 AM*