### Czarna IPKA

- Gravity 14 BLG
- ABV **5.8** %
- IBU **66**
- SRM **35.3**
- Style Black IPA

#### **Batch size**

- Expected quantity of finished beer 24 liter(s)
- Trub loss 5 %
- Size with trub loss 25.2 liter(s)
- · Boil time 60 min
- Evaporation rate 10 %/h
- Boil size 30.4 liter(s)

# **Mash information**

- Mash efficiency 75 %
- Liquor-to-grist ratio 3.2 liter(s) / kg
- Mash size 22 liter(s)
- Total mash volume 28.9 liter(s)

# **Steps**

- Temp **62 C**, Time **55 min** Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **7 min**

### Mash step by step

- Heat up 22 liter(s) of strike water to 68.6C
- Add grains
- Keep mash 55 min at 62C
- Keep mash 10 min at 72C
- Keep mash 7 min at 78C
- Sparge using 15.3 liter(s) of 76C water or to achieve 30.4 liter(s) of wort

### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg <i>(72.6%)</i>	80 %	5
Grain	Pilzneński	1 kg <i>(14.5%)</i>	81 %	4
Grain	obłuszczony	0.585 kg <i>(8.5%)</i>	73 %	1300
Grain	Strzegom Karmel 300	0.3 kg (4.4%)	70 %	299

# Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %
Boil	Chinook	30 g	20 min	13 %
Boil	Lublin (Lubelski)	40 g	10 min	4 %

#### **Yeasts**

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

#### **Extras**

Type	Name	Amount	Use for	Time
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Fining	mech irlandzki	10 a	Boil	10 min
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