#### Zeus

- Gravity 14.7 BLG
- ABV **6.1** %
- IBU **59**
- SRM **4.4**
- Style American IPA

#### **Batch size**

- Expected quantity of finished beer 20 liter(s)
- Trub loss 5 %
- Size with trub loss 22 liter(s)
- · Boil time 60 min
- Evaporation rate 10 %/h
- Boil size 26.4 liter(s)

#### **Mash information**

- Mash efficiency 70 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 15 liter(s)
- Total mash volume 20 liter(s)

### **Steps**

- Temp 66 C, Time 60 min
  Temp 78 C, Time 10 min

## Mash step by step

- Heat up 15 liter(s) of strike water to 73.7C
- Add grains
- Keep mash 60 min at 66C
- Keep mash 10 min at 78C
- Sparge using 16.4 liter(s) of 76C water or to achieve 26.4 liter(s) of wort

#### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg <i>(83.3%)</i>	80 %	5
Adjunct	Płatki owsiane	1 kg <i>(16.7%)</i>	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	14.4 %
Boil	Columbus/Tomahawk/Zeus	10 g	45 min	14.4 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	5 min	14.4 %
Whirlpool	Columbus/Tomahawk/Zeus	50 g	10 min	14.4 %
Dry Hop	Columbus/Tomahawk/Zeus	50 g	4 day(s)	15.5 %
Dry Hop	Citra	50 g	4 day(s)	12 %

## **Yeasts**

Name	Туре	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	

# **Extras**

Туре	Name	Amount	Use for	Time
Herb	Zest z mandarynek	1000 g	Boil	5 min

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Fining	whirlfloc	I I () a	l Boil	10 min
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