

# kalkulator

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- Gravity **16.8 BLG**
- ABV ---
- IBU ---
- SRM **29.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **7 %**
- Size with trub loss **51.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **61.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **45.8 liter(s)**
- Total mash volume **61 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **45.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Sparge using **30.9 liter(s)** of **76C** water or to achieve **61.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	11 kg (70.3%)	80 %	5
Grain	Weyermann - Carapils	1 kg (6.4%)	78 %	4
Grain	Płatki jęczmienne	1 kg (6.4%)	60 %	3
Grain	viking Pszeniczny jasny	1 kg (6.4%)	85 %	4
Grain	Carafa III special	1 kg (6.4%)	70 %	1034
Grain	barwiący	0.25 kg (1.6%)	55 %	985
Sugar	cukier brązowy	0.4 kg (2.6%)	--- %	---

## Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Slant	400 ml	Fermentis