

# Ei havuja, perkele!

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **53**
- SRM **5.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **7.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **7.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **9.5 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.3 liter(s) / kg**
- Mash size **6.8 liter(s)**
- Total mash volume **9.7 liter(s)**

## Steps

- Temp **63 C**, Time **60 min**

## Mash step by step

- Heat up **6.8 liter(s)** of strike water to **72.3C**
- Add grains
- Keep mash **60 min** at **63C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **9.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	0.7 kg (23.7%)	80 %	5
Grain	Viking Colorado Pale Base	2 kg (67.8%)	79 %	5
Grain	Viking Rye Malt	0.25 kg (8.5%)	63 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Laukaa 2016	63 g	20 min	2 %
Boil	Laukaa 2017	110 g	10 min	3 %
Boil	Spruce Tips	63 g	5 min	1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M36 Liberty Bell Ale	Ale	Dry	10 g	Mangrove Jack's