

Ei havuja, perkele!

- 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 |