IPA Milkshake

- Gravity 16.6 BLG ABV 7 %
- IBU 33
- SRM **4**
- Style American IPA

Batch size

- Expected quantity of finished beer 60 liter(s)
- Trub loss 5 %
- Size with trub loss 63 liter(s)
- Boil time 60 min
- Evaporation rate 10 %/h
- Boil size 75.9 liter(s)

Mash information

- Mash efficiency **75** %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 51 liter(s)
- Total mash volume 68 liter(s)

Steps

- Temp 68 C, Time 60 min
 Temp 76 C, Time 0 min

Mash step by step

- Heat up 51 liter(s) of strike water to 76C
- Add grains
- Keep mash 60 min at 68C
- Keep mash 0 min at 76C
- Sparge using 41.9 liter(s) of 76C water or to achieve 75.9 liter(s) of wort

Fermentables

| Туре | Name | Amount | Yield | EBC |
|-------|----------------------|----------------------|--------|-----|
| Grain | Viking Pilsner malt | 12 kg <i>(63.2%)</i> | 82 % | 4 |
| Grain | Viking Wheat Malt | 3 kg <i>(15.8%)</i> | 83 % | 5 |
| Grain | Oats, Malted | 2 kg <i>(10.5%)</i> | 80 % | 2 |
| Sugar | Milk Sugar (Lactose) | 2 kg <i>(10.5%)</i> | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil | Equinox | 100 g | 20 min | 13.1 % |
| Whirlpool | Mosaic | 100 g | 15 min | 10 % |

Yeasts

| Name | Туре | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us 05 | Ale | Dry | 30 g | |

Extras

| Туре | Name | Amount | Use for | Time |
|-------|------------------|--------|---------|------|
| Spice | pulpa mango | 3000 g | Primary | |
| Spice | czarna porzeczka | 3000 g | Primary | |