

Hardcore IPA

- Gravity **20.5 BLG**
- ABV **9 %**
- IBU **126**
- SRM **8.3**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **7.3 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|---------------|-------|-----|
| Grain | maris otter | 6 kg (89.6%) | 85 % | 7 |
| Grain | Weyermann - Carapils | 0.4 kg (6%) | 78 % | 4 |
| Grain | Weyermann - Caraamber | 0.3 kg (4.5%) | 75 % | 65 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|-----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 60 min | 15.5 % |
| Boil | Centennial | 30 g | 15 min | 10.5 % |
| Boil | Simcoe | 30 g | 15 min | 13.2 % |
| Boil | Columbus/Tomahawk/Zeus | 30 g | 10 min | 15.5 % |
| Boil | Centennial | 30 g | 10 min | 10.5 % |
| Boil | Simcoe | 30 g | 5 min | 13.2 % |
| Boil | Columbus/Tomahawk/Zeus | 30 g | 5 min | 15.5 % |
| Aroma (end of boil) | Centennial | 30 g | 0 min | 10.5 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 30 g | 0 min | 15.5 % |
| Dry Hop | Centennial | 15 g | 14 day(s) | 10.5 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 15 g | 14 day(s) | 15.5 % |

| | | | | |
|---------|--------|------|-----------|--------|
| Dry Hop | Simcoe | 15 g | 14 day(s) | 13.2 % |
|---------|--------|------|-----------|--------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 400 ml | Fermentis |