

# Hardcore IPA

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- 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  |