

Hardcore IPA 20 BLG

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **126**
- SRM **9.6**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **15.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **6.2 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 4 kg (85.1%) | 85 % | 7 |
| Grain | Weyermann - Carapils | 0.5 kg (10.6%) | 78 % | 4 |
| Grain | Weyermann Caramunich 3 | 0.2 kg (4.3%) | 76 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 60 min | 15.5 % |
| Aroma (end of boil) | Centennial | 20 g | 15 min | 10.5 % |
| Aroma (end of boil) | Simcoe | 20 g | 15 min | 13.2 % |
| Aroma (end of boil) | Centennial | 20 g | 10 min | 10.5 % |
| Aroma (end of boil) | Simcoe | 30 g | 5 min | 13.2 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 20 g | 5 min | 15.5 % |
| Aroma (end of boil) | Centennial | 30 g | 0 min | 10.5 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 20 g | 0 min | 15.5 % |

| | | | | |
|---------|------------------------|------|-----------|--------|
| Dry Hop | Centennial | 20 g | 14 day(s) | 10.5 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 20 g | 14 day(s) | 15.5 % |
| Dry Hop | Simcoe | 10 g | 14 day(s) | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |