

## #? Hardcore IPA

- Gravity **19.6 BLG**
- ABV **8.6 %**
- IBU **149**
- SRM **7.5**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **100 min**
- Evaporation rate **15 %/h**
- Boil size **15 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.1 liter(s)**
- Total mash volume **17.5 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (91.5%)	80 %	5
Grain	Weyermann - Carapils	0.21 kg (4.8%)	78 %	4
Grain	Caramel/Crystal Malt - 40L	0.16 kg (3.7%)	74 %	79

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	50 min	15.5 %
Boil	Centennial	20 g	15 min	10.5 %
Boil	Simcoe	20 g	15 min	13.2 %
Boil	Centennial	20 g	10 min	10.5 %
Boil	Columbus/Tomahawk/Zeus	20 g	10 min	15.5 %
Boil	Simcoe	20 g	5 min	13.2 %
Boil	Columbus/Tomahawk/Zeus	20 g	5 min	15.5 %
Boil	Centennial	20 g	1 min	10.5 %
Boil	Columbus/Tomahawk/Zeus	20 g	1 min	15.5 %
Dry Hop	Centennial	10 g	5 day(s)	10.5 %
Dry Hop	Columbus/Tomahawk/Zeus	10 g	5 day(s)	15.5 %
Dry Hop	Simcoe	10 g	5 day(s)	13.2 %