

# Heppy Cow

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **14**
- SRM **24.4**
- Style **Mild**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.5 liter(s)**
- Total mash volume **19.4 liter(s)**

## Steps

- Temp **70 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **14.5 liter(s)** of strike water to **78.4C**
- Add grains
- Keep mash **30 min** at **70C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (82.5%)	80 %	5
Grain	Karmelowy Jasny 30EBC	0.3 kg (6.2%)	75 %	30
Grain	Jęczmień palony	0.3 kg (6.2%)	55 %	985
Grain	Strzegom Czekoladowy 400	0.25 kg (5.2%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	10 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Other	laktoza	500 g	Boil	10 min

Spice	kawa arabica ziarna	50 g	Boil	10 min
Spice	kawa arabica mielona25	25 g	Primary	---