

# Kaskader

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **51**
- SRM **38.8**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 2 kg (35.1%)   | 80 %  | 5    |
| Grain | Abbey Castle                | 0.25 kg (4.4%) | 80 %  | 45   |
| Grain | Weyermann - Carafa III      | 0.45 kg (7.9%) | 70 %  | 1300 |
| Grain | Płatki żytnie               | 0.4 kg (7%)    | 85 %  | 3    |
| Grain | Weyermann - Chocolate Wheat | 0.15 kg (2.6%) | 74 %  | 1000 |
| Grain | Weyermann - Carafa I        | 0.25 kg (4.4%) | 70 %  | 800  |
| Grain | Pszeniczny                  | 2.2 kg (38.6%) | 85 %  | 4    |

## Hops

| Use for   | Name     | Amount | Time   | Alpha acid |
|-----------|----------|--------|--------|------------|
| Boil      | lunga    | 35 g   | 60 min | 11 %       |
| Boil      | Marynka  | 15 g   | 60 min | 10 %       |
| Whirlpool | Galaxy   | 20 g   | 20 min | 15 %       |
| Whirlpool | Cascade  | 15 g   | 20 min | 6 %        |
| Whirlpool | Amarillo | 20 g   | 20 min | 9.5 %      |

## Yeasts

| Name  | Type | Form  | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US-05 | Ale  | Slant | 150 ml | ---        |

## Notes

- Hopstand 70st C na 20min.  
*Sep 25, 2017, 10:38 PM*