

# HOPBY

---

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **33**
- SRM **7.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **11.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **5.3 liter(s)**
- Total mash volume **7 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **5.3 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **11.6 liter(s)** of wort

## Fermentables

| Type        | Name                               | Amount         | Yield | EBC |
|-------------|------------------------------------|----------------|-------|-----|
| Grain       | Pilzneński                         | 0.8 kg (40%)   | 81 %  | 4   |
| Grain       | Monachijski                        | 0.3 kg (15%)   | 80 %  | 16  |
| Grain       | Pszeniczny                         | 0.5 kg (25%)   | 85 %  | 4   |
| Grain       | Viking Malt Karmelowy              | 0.15 kg (7.5%) | 75 %  | 140 |
| Sugar       | Cukier kandyzowany belgijski biały | 0.15 kg (7.5%) | --- % | 0   |
| Dry Extract | Briess DME - Golden Light          | 0.1 kg (5%)    | 95 %  | 8   |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 10 g   | 15 min | 14.3 %     |
| Boil    | Columbus/Tomahawk/Zeus | 15 g   | 5 min  | 14.3 %     |
| Boil    | Falconer's Flight      | 15 g   | 1 min  | 10.7 %     |
| Boil    | Citra                  | 30 g   | 1 min  | 12 %       |