

## Session IPA hamerykanska

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **44**
- SRM **4.6**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Ireks Pale Ale       | 4.2 kg (84%) | 80 %  | 7   |
| Grain | Płatki owsiane       | 0.3 kg (6%)  | 85 %  | 3   |
| Grain | płatki jęczmienne    | 0.3 kg (6%)  | --- % | 3   |
| Grain | Weyermann - Carapils | 0.2 kg (4%)  | 78 %  | 4   |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Cascade    | 20 g   | 60 min | 6.8 %      |
| Boil                | Amarillo   | 10 g   | 30 min | 9.8 %      |
| Boil                | Cascade    | 10 g   | 10 min | 6.8 %      |
| Boil                | Amarillo   | 20 g   | 10 min | 9.8 %      |
| Boil                | Centennial | 15 g   | 10 min | 9.9 %      |
| Aroma (end of boil) | Mosaic     | 30 g   | 2 min  | 12.6 %     |
| Boil                | Centennial | 15 g   | 2 min  | 9.9 %      |
| Whirlpool           | Mosaic     | 10 g   | 0 min  | 12.6 %     |
| Whirlpool           | Cascade    | 10 g   | 0 min  | 6.8 %      |
| Whirlpool           | Sabro      | 30 g   | 0 min  | 12 %       |

**Yeasts**

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 800 ml | fermentis  |