

# Kepler session IPA

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **49**
- SRM **0.3**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.5 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **14.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

## Fermentables

| Type  | Name                    | Amount         | Yield | EBC |
|-------|-------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale       | 2.5 kg (51.3%) | 79 %  | --- |
| Grain | Słód monachijski Optima | 0.5 kg (10.3%) | 80 %  | --- |
| Grain | Słód pszeniczny Optima  | 0.5 kg (10.3%) | 80 %  | --- |
| Grain | Strzegom Pilzneński     | 1.2 kg (24.6%) | 80 %  | --- |
| Grain | Płatki owsiane          | 0.17 kg (3.5%) | 85 %  | 3   |

## Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Summit     | 15 g   | 60 min   | 17 %       |
| Boil                | Cascade    | 15 g   | 20 min   | 7 %        |
| Boil                | Centennial | 15 g   | 20 min   | 10.5 %     |
| Aroma (end of boil) | Cascade    | 20 g   | 1 min    | 7 %        |
| Aroma (end of boil) | Centennial | 20 g   | 1 min    | 10.5 %     |
| Dry Hop             | Cascade    | 25 g   | 3 day(s) | 6 %        |
| Dry Hop             | Centennial | 25 g   | 3 day(s) | 10.5 %     |

## Yeasts

| Name            | Type | Form | Amount | Laboratory |
|-----------------|------|------|--------|------------|
| Fermentis US-05 | Ale  | Dry  | 11 g   | ---        |