

## APA 11,5 Blg (Marxam)

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **23**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **0 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.4 liter(s)**

### Mash information

- Mash efficiency **73.5 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.1 liter(s)**

### Steps

- Temp **65 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt  | 3.5 kg (74.5%) | 80 %  | 5   |
| Grain | Strzegom Wiedeński    | 1 kg (21.3%)   | 79 %  | 10  |
| Grain | Karmelowy Jasny 30EBC | 0.2 kg (4.3%)  | 75 %  | 30  |

### Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Citra    | 4 g    | 60 min | 12 %       |
| Boil                | Citra    | 14 g   | 30 min | 12 %       |
| Boil                | Citra    | 10 g   | 5 min  | 12 %       |
| Aroma (end of boil) | Amarillo | 10 g   | 0 min  | 9.5 %      |
| Aroma (end of boil) | Citra    | 27 g   | 0 min  | 12 %       |

### Yeasts

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