

# Amarykańskie chmiele

---

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **25**
- SRM **4.7**

## 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 **29.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **65 C**, Time **60 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **60 min** at **65C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount        | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (86.2%)  | 80 %  | 4   |
| Grain | Monachijski         | 0.5 kg (8.6%) | 80 %  | 16  |
| Grain | Strzegom Karmel 30  | 0.3 kg (5.2%) | 75 %  | 30  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Warrior | 10 g   | 60 min | 18.5 %     |
| Boil    | Warrior | 5 g    | 30 min | 15.5 %     |
| Boil    | Cascade | 30 g   | 3 min  | 5.6 %      |