

Kara Mustafa

- Gravity **14.3 BLG**
- ABV ---
- IBU **78**
- SRM **7**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **3 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **3 min** at **76C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 2.5 kg (47.6%) | 79 % | 6 |
| Grain | Strzegom Pilzneński | 2.5 kg (47.6%) | 80 % | 4 |
| Grain | Karmelowy Czerwony | 0.25 kg (4.8%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 42 g | 60 min | 15.5 % |
| Boil | Cascade | 25 g | 5 min | 6 % |
| Boil | Cascade | 25 g | 1 min | 6 % |
| Dry Hop | Cascade | 50 g | 7 day(s) | 6 % |

Yeasts

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