

American IPA #41

- Gravity **15.4 BLG**
- ABV ---
- IBU **65**
- SRM **6.6**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **81.9 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.3 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **70.5C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|--------|-----|
| Grain | Bestmalz - pilznieński | 4.75 kg (79.6%) | 80.5 % | 4 |
| Grain | Bestmalz - pszeniczny | 0.6 kg (10.1%) | 82 % | 4.5 |
| Grain | Bestmalz - monachijski I | 0.42 kg (7%) | 80 % | 16 |
| Grain | Chateau - Crystal | 0.2 kg (3.4%) | 78 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Topaz | 24 g | 60 min | 15.5 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 25 g | 15 min | 12.5 % |
| Aroma (end of boil) | Centennial | 25 g | 10 min | 9.4 % |
| Aroma (end of boil) | Simcoe | 25 g | 5 min | 13.1 % |
| Aroma (end of boil) | Citra | 25 g | 1 min | 12 % |
| Dry Hop | Centennial | 50 g | 5 day(s) | 9.4 % |
| Dry Hop | Amarillo | 50 g | 5 day(s) | 7.5 % |
| Dry Hop | Simcoe | 50 g | 5 day(s) | 13.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 160 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------------|--------|---------|-------|
| Fining | Mech irlandzki | 3 g | Boil | 5 min |
| Water Agent | gips piwowarski | 4 g | Mash | --- |
| Water Agent | chlerek wapnia [ml] | 2.6 g | Mash | --- |
| Water Agent | kwas mlekowy 80% [ml] | 4.96 g | Mash | --- |
| Water Agent | sól epsom | 2 g | Mash | --- |