# CHEMICAL RESISTANCE OF BELZONA® 5892

FN10106

| | Chemical name (Synonym) | Chemical formula (CAS number) | Concentration | Chemical Resistance 20 ˚C 68 ˚F | 60 ˚C 140 ˚F | 90 ˚C 194 ˚F | Other |
|---|---|---|---|---|---|---|---|
| Inorganic Acids | Hydrochloric acid | HCl (7647-01-0) | 10% | **G*** | M | **M** | - |
| | | | 5% | **G*** | M | **M** | - |
| | | | 1% | **Ex*** | **G** | **M** | - |
| | Phosphoric acid (orthophosphoric acid) | $H_3PO_4$ (7664-38-2) | 5% | **M*** | M | **P** | - |
| | Sulphuric acid | $H_2SO_4$ (7664-93-9) | 10% | **M*** | **P** | **P** | - |
| | | | 5% | **M*** | M | **P** | - |
| | | | 1% | **Ex*** | **M** | **M** | - |
| Organic Acids | Acetic acid (ethanoic acid) | $CH_3COOH$ (64-19-7) | 5% | **P*** | **P** | **P** | - |
| | | | 1% | G* | G | **G** | - |
| | | | 0.1% | Ex* | Ex | **Ex** | - |
| | Phenol (hydroxybenzene) | $C_6H_5OH$ (108-95-2) | 80% | P* | P | P | - |
| Alcohols, Aldehydes and Ketones | Acetone (propanone) | $(CH_3)_2CO$ (67-64-1) | - | M* | - | - | - |
| | Amyl alcohol | $C_5H_{11}OH$ (71-41-0) | - | Ex* | G | G | - |
| | n-Butanol (butyl alcohol) | $C_4H_9OH$ (71-36-3) | - | Ex* | G | G | - |
| | Ethanol (ethyl alcohol) | $CH_3CH_2OH$ (64-17-5) | - | **Ex*** | **G** | - | **78˚C 172˚F M** |
| | Ethylene glycol (ethan-1,2-diol, monoethylene glycol, MEG) | $(CH_2OH)_2$ (107-21-1) | - | **Ex*** | Ex | **Ex** | - |
| | Glycerol (glycerine, propane-1,2,3-triol) | $HOCH_2CH(OH)CH_2OH$ (56-81-5) | - | Ex* | G | G | - |
| | n-Hexanol (hexyl alcohol) | $C_6H_{13}OH$ (111-27-3) | - | Ex* | G | G | - |

| | |
|---|---|
| **Excellent** **Ex** | no significant deterioration / barrier properties retained for greater than 52 weeks<br>*suitable for all applications including long term immersion* |
| **Good** **G** | no significant deterioration / barrier properties retained for 12 - 52 weeks<br>*suitable for short-term immersion and general chemical contact* |
| **Moderate** **M** | no significant deterioration / barrier properties retained for 1 - 12 weeks<br>*suitable for applications involving short term chemical contact e.g. spillage, splashing or secondary containment* |
| **Poor** **P** | significant deterioration / loss of barrier properties after 1 week or less<br>*not suitable for any application* |
| * | Product must be post cured to deliver quoted chemical resistance |
| **Ex** | **Bold** text highlights real life data obtained via chemical resistance testing |
| Ex | Normal font indicates that the resistance has been predicted based upon partial test data and/or similar reagents |

# CHEMICAL RESISTANCE OF BELZONA® 5892

FN10106

| | Chemical name (Synonym) | Chemical formula (CAS number) | Concentration | Chemical Resistance 20 ˚C 68 ˚F | 60 ˚C 140 ˚F | 90 ˚C 194 ˚F | Other |
|---|---|---|---|---|---|---|---|
| Alcohols, Aldehydes and Ketones | Higher alcohols | $C_nH_{(2n+1)}OH$ where n > 2 | - | Ex* | G | G | - |
| | Isopropyl alcohol (IPA) (isopropanol, propan-2-ol) | $CH_3CH(OH)CH_3$ (67-63-0) | - | **Ex*** | G | - | - |
| | Isobutyl alcohol (IBA) (isobutanol, 2-methylpropan-1-ol) | $(CH_3)_2CHCH_2OH$ (78-83-1) | - | Ex* | G | G | - |
| | Methanol (methyl alcohol) | $CH_3OH$ (67-56-1) | - | **Ex*** | M | - | **65˚C 149˚F M** |
| | Methyl ethyl ketone (MEK) (2-butanone, methyl acetone) | $CH_3C(O)CH_2CH_3$ (78-93-3) | - | **Ex*** | M | - | - |
| | Methyl isobutyl ketone (MIBK) (hexone, 4-Methylpentan-2-one) | $(CH_3)_2CHCH_2C(O)CH_3$ (108-10-1) | - | **Ex*** | **Ex*** | M | - |
| | Methyl pentyl ketone (methyl n-amyl ketone, heptan-2-one) | $CH_3COCH_2CH_2CH_2CH_2CH_3$ (110-43-0) | - | Ex* | Ex | G | - |
| | Propan-1-ol (Propyl alcohol) | $CH_3CH_2CH_2OH$ (71-23-8) | - | Ex* | G | G | - |
| | Propylene glycol (1,2-Propanediol) | $CH_3CH(OH)CH_2OH$ (57-55-6) | - | Ex* | Ex | Ex | - |
| | Secondary alcohols | $R_1R_2CHOH$ | - | Ex* | G | G | - |
| | Tertiary alcohols | $R_1R_2R_3COH$ | - | Ex* | G | G | - |
| | Triethylene glycol (triglycol) | $HOCH_2CH_2OCH_2CH_2OCH_2CH_2OH$ (112-27-6) | - | **Ex*** | G | **M** | - |
| | Tetraethylene glycol (tetraglycol) | $HOCH_2CH_2OCH_2CH_2OCH_2CH_2OCH_2CH_2OH$ (112-60-7) | - | Ex* | G | M | - |

| | |
|---|---|
| **Excellent** **Ex** | no significant deterioration / barrier properties retained for greater than 52 weeks<br>*suitable for all applications including long term immersion* |
| **Good** **G** | no significant deterioration / barrier properties retained for 12 - 52 weeks<br>*suitable for short-term immersion and general chemical contact* |
| **Moderate** **M** | no significant deterioration / barrier properties retained for 1 - 12 weeks<br>*suitable for applications involving short term chemical contact e.g. spillage, splashing or secondary containment* |
| **Poor** **P** | significant deterioration / loss of barrier properties after 1 week or less<br>*not suitable for any application* |
| * | Product must be post cured to deliver quoted chemical resistance |
| **Ex** | **Bold** text highlights real life data obtained via chemical resistance testing |
| Ex | Normal font indicates that the resistance has been predicted based upon partial test data and/or similar reagents |

# CHEMICAL RESISTANCE OF BELZONA® 5892

FN10106

| | Chemical name (Synonym) | Chemical formula (CAS number) | Concentration | Chemical Resistance 20 ˚C 68 ˚F | 60 ˚C 140 ˚F | 90 ˚C 194 ˚F | Other |
|---|---|---|---|---|---|---|---|
| Alkalis / Bases | Ammonia solution (ammonium hydroxide) | $NH_3$ (aq) (1336-21-6) | 25% | **Ex*** | - | - | - |
| | Potassium hydroxide (caustic potash) | KOH 1310-58-3) | 10% | **Ex*** | G | **M** | - |
| | Sodium hydroxide (caustic soda) | NaOH (1310-73-2) | 50%<br>20%<br>10% | **Ex***<br>**Ex***<br>**Ex*** | **G**<br>G<br>G | **G**<br>**G**<br>**G** | -<br>-<br>- |
| Amines & Amides | Diethanolamine (DEA) (2,2'-iminodiethanol) | $HN(CH_2CH_2OH)_2$ (111-42-2) | - | Ex* | **Ex** | **Ex** | - |
| | Diethylene glycolamine (DGA) (2-(2-aminoethoxy) ethanol) | $H_2NCH_2CH_2OCH_2CH_2OH$ (929-06-6) | - | **M*** | **P** | **P** | - |
| | N-Methyl diethanolamine (MDEA) | $CH_3N(CH_2CH_2OH)_2$ (105-59-9) | - | **Ex*** | **Ex** | **Ex** | - |
| | Monoethanolamine (MEA) (2-aminoethanol) | $H_2NCH_2CH_2OH$ (141-43-5) | - | **M*** | **P** | **P** | - |
| | Sulfinol solution (50% diisopropanolamine, 25% tetramethylene sulphone, 25% water) | N/A | - | **Ex*** | **G** | **M** | - |
| | Triethanolamine (TEA) (2,2',2"-nitrilotriethanol) | $N(CH_2CH_2OH)_3$ (102-71-6) | - | Ex* | Ex | G | - |
| Gases | Butane | $CH_3CH_2CH_2CH_3$ (106-97-8) | - | Ex | Ex | Ex | - |
| | Carbon dioxide | $CO_2$ (124-38-9) | - | Ex | Ex | Ex | - |
| | Carbon monoxide | CO (630-08-0) | - | Ex | Ex | Ex | - |
| | Chlorine (dry) | $Cl_2$ (7782-50-5) | - | Ex | Ex | Ex | - |

| | | |
|---|---|---|
| **Excellent** | **Ex** | no significant deterioration / barrier properties retained for greater than 52 weeks<br>*suitable for all applications including long term immersion* |
| **Good** | **G** | no significant deterioration / barrier properties retained for 12 - 52 weeks<br>*suitable for short-term immersion and general chemical contact* |
| **Moderate** | **M** | no significant deterioration / barrier properties retained for 1 - 12 weeks<br>*suitable for applications involving short term chemical contact e.g. spillage, splashing or secondary containment* |
| **Poor** | **P** | significant deterioration / loss of barrier properties after 1 week or less<br>*not suitable for any application* |
| * | | Product must be post cured to deliver quoted chemical resistance |
| **Ex** | | **Bold** text highlights real life data obtained via chemical resistance testing |
| Ex | | Normal font indicates that the resistance has been predicted based upon partial test data and/or similar reagents |

# CHEMICAL RESISTANCE OF BELZONA® 5892

FN10106

| | Chemical name (Synonym) | Chemical formula (CAS number) | Concentration | Chemical Resistance 20 ˚C 68 ˚F | 60 ˚C 140 ˚F | 90 ˚C 194 ˚F | Other |
|---|---|---|---|---|---|---|---|
| Gases | Ethane | $C_2H_6$ (74-84-0) | - | Ex | Ex | Ex | - |
| | Hydrogen | $H_2$ (1333-74-0) | - | Ex | Ex | Ex | - |
| | Hydrogen sulphide | $H_2S$ (7783-06-4) | - | Ex | Ex | Ex | - |
| | Methane (natural gas) | $CH_4$ (74-82-8) | - | Ex | Ex | Ex | - |
| | Nitrogen | $N_2$ (7727-37-9) | - | Ex | Ex | Ex | - |
| | Nitrous oxide (dinitrogen monoxide) | $N_2O$ (10024-97-2) | - | Ex | Ex | Ex | - |
| | Ozone (dry) | $O_3$ (10028-15-6) | - | Ex | Ex | Ex | - |
| | Ozone (wet) | $O_3$ (10028-15-6) | - | G* | M | M | - |
| | Sulphur dioxide | $SO_2$ (7446-09-5) | - | Ex | Ex | Ex | - |
| | Sulphur trioxide (sulphuric anhydride) | $SO_3$ (7446-11-9) | - | Ex | Ex | Ex | - |
| Hydrocarbons | Aviation fuel (AVCAT, AVGAS, AVTAG, AVTUR) | N/A | - | Ex* | Ex | Ex | - |
| | Crude Oil | N/A | - | **Ex*** | Ex | Ex | |
| | Cyclohexane | $C_6H_{12}$ (110-82-7) | - | Ex* | Ex | - | - |
| | Diesel | N/A | - | Ex | Ex | Ex | - |

| | |
|---|---|
| **Excellent** **Ex** | no significant deterioration / barrier properties retained for greater than 52 weeks<br>*suitable for all applications including long term immersion* |
| **Good** **G** | no significant deterioration / barrier properties retained for 12 - 52 weeks<br>*suitable for short-term immersion and general chemical contact* |
| **Moderate** **M** | no significant deterioration / barrier properties retained for 1 - 12 weeks<br>*suitable for applications involving short term chemical contact e.g. spillage, splashing or secondary containment* |
| **Poor** **P** | significant deterioration / loss of barrier properties after 1 week or less<br>*not suitable for any application* |
| * | Product must be post cured to deliver quoted chemical resistance |
| **Ex** | **Bold** text highlights real life data obtained via chemical resistance testing |
| Ex | Normal font indicates that the resistance has been predicted based upon partial test data and/or similar reagents |

# CHEMICAL RESISTANCE OF BELZONA® 5892

FN10106

| | Chemical name (Synonym) | Chemical formula (CAS number) | Concentration | Chemical Resistance 20 ˚C 68 ˚F | 60 ˚C 140 ˚F | 90 ˚C 194 ˚F | Other |
|---|---|---|---|---|---|---|---|
| Hydrocarbons | Ethyl benzene (ethyl benzol, EB) | $C_6H_5CH_2CH_3$ (100-41-4) | - | Ex* | Ex | G | - |
| | Gasoline (without Ethanol) (petrol) | N/A (8032-32-4) | - | Ex* | Ex | Ex | - |
| | Heptane | CH3CH2CH2CH2CH2CH2CH3 (142-82-7) | - | Ex* | Ex | Ex | - |
| | Hexane | CH3CH2CH2CH2CH2CH3 (110-54-3) | - | Ex* | Ex | - | - |
| | Iso-octane (2,2,4-trimethylpentane) | (CH3)3CCH2CH(CH3)2 (540-84-1) | - | Ex* | Ex | Ex | - |
| | Kerosene | N/A (8008-20-6) | - | Ex* | Ex | Ex | - |
| | Mesitylene (1,3,5-Trimethylbenzene ) | C6H3(CH3)3 (108-67-8) | - | Ex* | Ex | Ex | - |
| | Mineral spirits / White spirits (Stoddard solvent) | N/A (8052-41-3) | - | Ex* | Ex | Ex | - |
| | Naphtha | N/A (8030-30-6) | - | Ex* | Ex | Ex | - |
| | Naphthalene (naphthalin, white tar) | C10H8 (91-20-3) | - | Ex* | Ex | Ex | - |

| | |
|---|---|
| **Excellent** **Ex** | no significant deterioration / barrier properties retained for greater than 52 weeks<br>*suitable for all applications including long term immersion* |
| **Good** **G** | no significant deterioration / barrier properties retained for 12 - 52 weeks<br>*suitable for short-term immersion and general chemical contact* |
| **Moderate** **M** | no significant deterioration / barrier properties retained for 1 - 12 weeks<br>*suitable for applications involving short term chemical contact e.g. spillage, splashing or secondary containment* |
| **Poor** **P** | significant deterioration / loss of barrier properties after 1 week or less<br>*not suitable for any application* |
| * | Product must be post cured to deliver quoted chemical resistance |
| **Ex** | **Bold** text highlights real life data obtained via chemical resistance testing |
| Ex | Normal font indicates that the resistance has been predicted based upon partial test data and/or similar reagents |

# CHEMICAL RESISTANCE OF BELZONA® 5892

FN10106

| | Chemical name (Synonym) | Chemical formula (CAS number) | Concentration | Chemical Resistance 20 ˚C 68 ˚F | 60 ˚C 140 ˚F | 90 ˚C 194 ˚F | Other |
|---|---|---|---|---|---|---|---|
| Hydrocarbons | Paraffin | N/A (8002-74-2) | - | Ex* | Ex | Ex | - |
| | Pentane | $CH_3CH_2CH_2CH_2CH_3$ (109-66-0) | - | Ex* | - | - | - |
| | Toluene (methylbenzene, phenylmethane, toluol) | $C_6H_5CH_3$ (108-88-3) | - | **Ex*** | **Ex** | **G** | - |
| | Xylene (dimethyl benzene, xylol) | $C_6H_4(CH_3)_2$ (95-47-6/108-38-3/106-42-3/1330-20-7) | - | Ex* | Ex | **G** | - |

| | | |
|---|---|---|
| **Excellent** | **Ex** | no significant deterioration / barrier properties retained for greater than 52 weeks<br>*suitable for all applications including long term immersion* |
| **Good** | **G** | no significant deterioration / barrier properties retained for 12 - 52 weeks<br>*suitable for short-term immersion and general chemical contact* |
| **Moderate** | **M** | no significant deterioration / barrier properties retained for 1 - 12 weeks<br>*suitable for applications involving short term chemical contact e.g. spillage, splashing or secondary containment* |
| **Poor** | **P** | significant deterioration / loss of barrier properties after 1 week or less<br>*not suitable for any application* |
| * | | Product must be post cured to deliver quoted chemical resistance |
| **Ex** | | **Bold** text highlights real life data obtained via chemical resistance testing |
| Ex | | Normal font indicates that the resistance has been predicted based upon partial test data and/or similar reagents |