



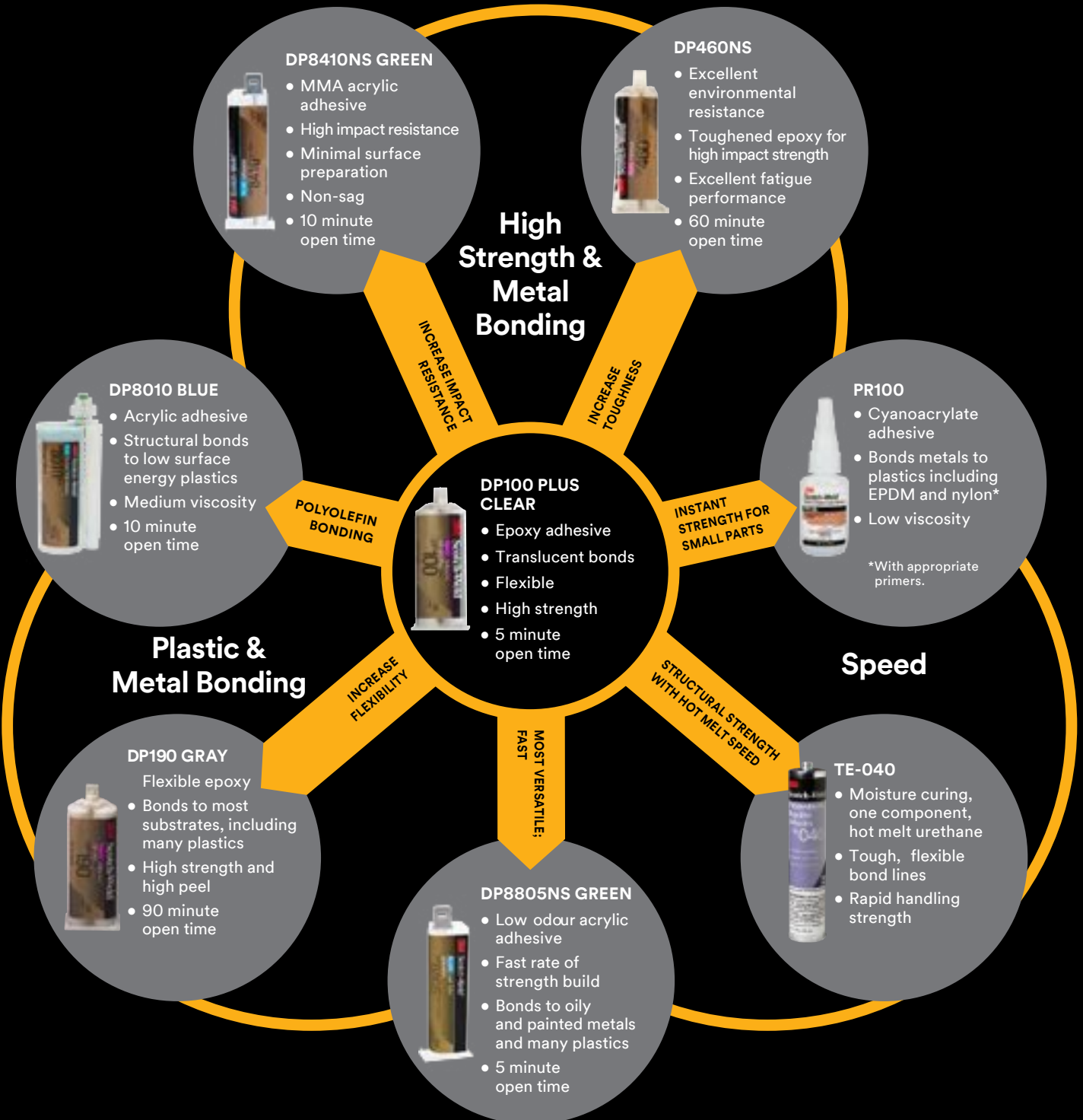
3M Science.
Applied to Life.™

3M™ Scotch-Weld™ Structural Adhesive Solutions.

For design, process and performance.

3M™ Scotch-Weld™ Structural Adhesives

Adhesive Science for Bonding Solutions

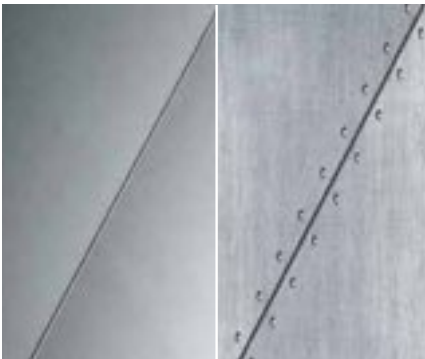


Design Solutions

Improve Aesthetics

- Replace rivets, welds and screws
- Invisible joints
- Create smoother bond lines

Producing a seamless appearance



Recommended 3M products:
DP100 PLUS & DP460NS

Lightweighting

- Eliminate the weight of mechanical fasteners
- Use thinner, lighter materials
- Build with composites and hard-to-bond plastics

Making products lighter and more efficient



Recommended 3M products:
DP8010 & DP460NS

Freedom to Design

- Adhere difficult-to-bond materials, such as HDPE/PP
- Bond multiple materials, such as metal to plastic
- Smaller joints take up less space

Extending your design latitude



Recommended 3M products:
DP8010 & DP8805NS

Process Efficiencies

Cost-Efficient

- Reduce labour costs
- Use thinner materials to decrease costs
- Eliminate post-finishing

Enhance Productivity

- Variety of cure rates to match your process needs
- Build faster with minimal surface prep
- Withstands high process temperatures

Accurate and Easy

- Control dispensing with 3M™ EPX™ exact proportioning and mixing applicators
- Match your processing needs with a range of viscosities and flow rates
- Handle large applications with bulk meter-mix equipment

Saving time and weight reduction

Adhesive vs Bolt

2.5mm x 610mm Application
97% Weight Reduction

25mm X 610mm
BEAD OF ADHESIVE

STANDARD BOLTS
152mm APART

Weights
4 grams

Weights
125 grams

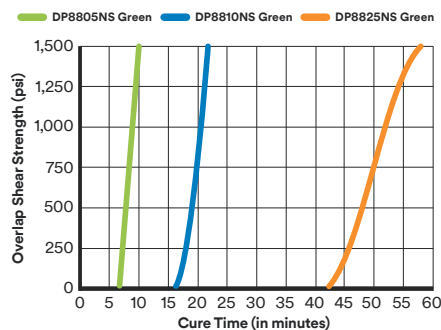
(5 bolts with nuts)

10% = **6-7%**
weight reduction = fuel savings

Accelerating output and efficiencies



Structural Acrylic Adhesives —
with various open times and exceptionally fast cure rates allow you to move your parts faster.



Recommended 3M products:
DP8410NS & DP8805NS

Eliminating hand mixing



Recommended 3M products:
TE-040 & DP460NS

Performance Optimisation

Strong Bonds

- Eliminate stress concentrations
- Toughened adhesives absorb shock for durable bonds
- Bond and seal simultaneously

Providing solutions for high-strength applications

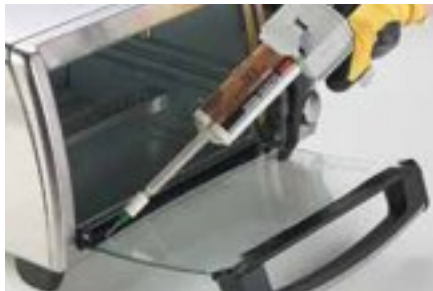


Recommended 3M products:
DP460NS & DP8410NS

Flexible Bonds

- Absorb vibration and thermal expansion mismatch
- Reduce NVH (noise vibration harshness)
- Resist material separation along edges and corners with high peel strength

Enhancing durability in tough environments



*Coefficient of thermal expansion.

Recommended 3M products:
DP190 & DP100PLUS

Quality & Durability

- Improve vibration and fatigue resistance
- Environmental and chemical resistance
- Eliminate galvanic corrosion

Bonds that last under harsh conditions



Recommended 3M products:
DP8410NS & DP8010 BLUE

3M™ Scotch-Weld™ Structural Adhesive “Lead” Products

Product (Colour)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 24°C (cP)	Open Time (Work Life) (Minutes)	Set Time	Approximate Time to Handling Strength at 24°C	Floating Roller (Bell Peel) at 24°C	Overlay Shear (psi)			Long Term Temperature Range
								-55°C	24°C	82°C	
DP100 Plus (Clear)	Flexible bonds	1:1	8,500	4	N/A	20 minutes	55	5,000	3,500	200	-55 to 162°C
DP190 Gray	High performance Flexible bonds	1:1	Base(B) 75,000 - 150,000 Accelerator(A) 40,000 - 80,000	90	N/A	8-12 hours	20	1,500	2,500	400	-55 to 162°C
DP460NS (Off-White)	Tough Durable Bonds	2:1	Base(B) 150,000 - 275,000 Accelerator(A) 8,000 - 14,000	60	N/A	5 hours	60	4,900	4,650	1360	-55 to 177°C
DP8010 Blue	Bonds polyolefins and low surface energy materials	10:1	20,000	10	N/A	1 hour	N/A	2,700	2,700	500	-55 to 121°C
DP8805NS (Green)	Low odour Fast rate of strength build	10:1	80,000	5	N/A	10 minutes	30	N/A	3,600	900	-29 to 138°C
DP8410NS (Green)	High impact Adhesion to most plastics	10:1	70,000	2	N/A	25 minutes	50	N/A	4,100	800	-40 to 138°C
PR100 (Clear)	General purpose, low viscosity plastic and rubber bonder	N/A	100	N/A	10-30 seconds	N/A	N/A	N/A	N/A	N/A	-55 to 82°C
Product Colour	Key Features				Mix Ratio (Volume) B:A	Approximate Viscosity at 24°C (cP)	Open Time (Work Life)	Set Time	Durometer (Shore D)	Tensile Strength	Elongation
TE-040	Fast set time and bonds most wood, plastics, metal and glass				N/A	7000	2 minutes	40 seconds	35	2750	860%

Product Use: All statements, technical information and recommendations contained in this document are based on tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose other than those already stated by 3M, and suitable for the user's method of application.



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